Colorado Legislative Council Staff

May 2020 | Economic & Revenue Forecast Update

May 12, 2020

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Special thanks to Jerry Schierkolk, David Williams, Dan Phillips, Suzanne Keim, and Cathy Eslinger.
Cover photos of the Colorado State Capitol, courtesy of Suzanne Keim.

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Executive Summary

This report presents the budget outlook based on current law and the May 2020 forecast update for General Fund revenue, cash fund revenue, and TABOR forecasts. This document also includes summaries of expectations for the U.S. and Colorado economies.

General Fund Budget Outlook

FY 2018-19

Figures from the Comprehensive Annual Financial Report indicate that the General Fund ended FY 2018-19 with an 11.2 percent reserve, $448.3 million above the 7.25 percent statutory reserve. Revenue subject to TABOR exceeded the Referendum C cap by $428.3 million, resulting in a TABOR refund in FY 2019-20. The TABOR refund obligation will be returned to taxpayers via a temporary income tax rate reduction for tax year 2019 in addition to fully funding local government reimbursements for property tax exemptions.

FY 2019-20

The impacts of the COVID-19 pandemic and related economic contraction that began in March will result in a significant decline in General Fund revenue over the last three months of the fiscal year. As a result, an $895.8 million General Fund deficit is expected at the end of FY 2019-20. This deficit assumes full funding of current law obligations, including the 7.25 percent statutory reserve, and General Fund transfers and appropriations, and does not account for changes in expenditures resulting from the governor's budget sequestration order. Any changes made to current law obligations will impact the deficit amount. Revenue subject to TABOR is expected to fall $1.3 billion below the Referendum C cap.

FY 2020-21 Unbudgeted

The economic contraction will reduce General Fund revenue further in FY 2020-21. The General Assembly has yet to adopt a budget for FY 2020-21. Based on current law obligations, including transfers and the required 7.25 percent statutory reserve, if General Fund appropriations are held constant relative to FY 2019-20 levels, the General Assembly is projected to have a $3.3 billion, or 25.3 percent, shortfall in revenue. This amount represents the cumulative, two-year impact of revenue declines, as the deficit from FY 2019-20 is carried over into FY 2020-21. In holding FY 2019-20 appropriations constant, this amount does not account for any additional shortfall resulting from the cost of inflation or caseload growth. Revenue subject to TABOR is expected to fall below the Referendum C cap by $3.3 billion.

Risks to the forecast. The events that have unfolded over the past two months have dramatically impacted the economy and state revenue. The economic and health policy landscape continue to evolve and as a result, the General Fund budget faces an uncertain outlook with both upside and downside risks to the forecast. The pace of the economic recovery in Colorado and nationally will heavily influence revenue streams, including income and sales tax revenue. These two sources of revenue have historically accounted for about 95 percent of General Fund revenue. Longer or repeated periods of reduced economic activity to control the spread of COVID-19 will cause more severe and longer lasting revenue impacts. Conversely, near-term development and distribution of a COVID-19 therapy, a stronger than expected resumption of economic activity, and additional federal fiscal and/or monetary policy support pose near-term upside risks to the forecast.

Cash Fund Revenue

Total cash fund revenue subject to TABOR in the current FY 2019-20 is expected to total $2.24 billion, a decline of 7.9 percent from the prior year, and decline an additional 7.7 percent to total $2.07 billion in FY 2020-21. The crude oil market rout, drop in travel activity due to COVID-19-related disruptions, and closure of casinos will significantly slow collections from severance tax, transportation-related revenue, and gaming revenue. As the economy improves and COVID-19-related restrictions ease, collections will recover but remain below FY 2018-19 levels throughout the forecast period.

Unemployment Insurance Trust Fund insolvency. Unemployment insurance benefits paid have seen an unprecedented increase during the COVID-19-related economic contraction and are expected to reach $1.6 billion in FY 2019-20 and $2.5 billion in FY 2020-21. As a consequence, the state Unemployment Insurance Trust Fund is expected to become insolvent by the end of the current fiscal year, triggering the solvency surcharge beginning January 1, 2021.

Economic Outlook

The impacts of the COVID-19 pandemic and the related public health response of the past two months have been widespread, leaving no part of the U.S. and Colorado economies untouched. Economic activity began a steep decline in the first quarter of 2020 and is expected to deepen significantly in the second quarter, reflecting the impacts of the COVID-19-related business closures, stay-at-home orders, and travel restrictions. Phased reopening will give rise to a recovery throughout the remainder of the calendar year—though ongoing restrictions, health concerns, and uncertainty will constrain growth. Additionally, some business closures and job losses will be permanent, leaving a lasting mark on economic activity.

The global oversupply of crude oil, met with the more recent COVID-19-related plummet in fuel demand, has sent crude oil prices to unprecedented lows. As the U.S. oil and gas industry contracts, upstream and downstream industry impacts are mounting, compounding the impacts of the COVID-induced recession.

Unprecedented federal stimulus and monetary policy have helped to stabilize and soften the impact of economic contraction. Yet, the strength of the recovery remains uncertain and dependent on an effective means to isolate and contain COVID-19. This forecast assumes that a vaccine will not be available for at least a year, necessitating ongoing social distancing restrictions. Gradual easing of pervasive and strict March and April restrictions is expected, with more targeted localized interventions in areas facing outbreaks. Widespread closures are not assumed in this forecast, but are possible and could result in a more prolonged or protracted recession.

Near-term containment of COVID-19 and/or more rapid development of a vaccine or other treatment pose upside risks to the outlook. Additional fiscal stimulus and a rise in crude oil prices pose additional upside risks. Finally, the nation and Colorado are just beginning to reopen after several weeks of shuttered business and consumer activity. The vibrancy of economic activity could resume at a stronger pace than forecast, with more limited ripple effects from the shutdown and a more robust rebound in economic growth. Discussion of the economic outlook begins on page 29, and summaries of expectations for the U.S. and Colorado economies are presented, respectively, in Tables 14 and 15 on pages 40 and 41.

General Fund Budget Overview

This section presents the General Fund overview based on current law. A summary of the General Fund overview is shown in Table 1. This section also presents expectations for the following:

- The TABOR outlook (Table 2 and Figure 1);
- statutory transfers to transportation and capital construction funds (Table 3);
- General Fund transfers to the State Education Fund (Figure 2);
- the disposition of fiscal policies dependent on revenue collections (Tables 4 and 5);
- General Fund rebates and expenditures (Table 6); and
- cash fund transfers to and from the General Fund (Table 7).

FY 2018-19

Based on the Comprehensive Annual Financial Report released by the Office of the State Controller, the General Fund ended FY 2018-19 with an 11.2 percent reserve, $448.3 million higher than the statutorily required 7.25 percent reserve. Revenue exceeded the Referendum C cap by $428.3 million, resulting in a TABOR refund in FY 2019-20. The TABOR refund obligation is being returned to taxpayers via a temporary income tax rate reduction for tax year 2019 only, in addition to fully funding the senior homestead and disabled veteran property tax exemptions.

FY 2019-20

The impacts of the COVID-19 pandemic and related economic contraction that began in March will result in a significant decline in General Fund revenue during the last three months of the fiscal year. As a result, the General Fund is expended to end FY 2019-20 with an $895.8 million deficit. This deficit assumes full funding of current law obligations, including the 7.25 percent statutory reserve, and General Fund transfers and appropriations. Appropriation amounts incorporate expenditure impacts from 2020 legislation signed into law to date, including supplemental packages (House Bill 20-1242 through House Bill 20-1249), House Bill 20-1019, House Bill 20-1261, and House Bill 20-1260, the supplemental bill for school finance. Any other legislation enacted during the 2020 session that impacts revenue, expenditures, or transfers in the current fiscal year will change the projected deficit amount. The estimate of the budget deficit does not account for reductions in expenditures resulting from Executive Order D 2020 050, which ordered state agencies to reduce FY 2019-20 expenditures by $228.7 million. Additionally, it excludes revenue received from the state's share of the Coronavirus Relief Fund created in the federal CARES Act, as this revenue is not credited to the General Fund.

Relative to the March forecast, expectations for the FY 2019-20 year-end balance have been reduced by $900.1 million. The difference primarily reflects downward revisions to General Fund revenue to reflect the impact of COVID-19 on economic activity and revenue collections. Gross General Fund revenue expectations were reduced by $892.8 million with reductions across all major revenue streams.

FY 2020-21 (Unbudgeted)

Because a budget has not yet been enacted for FY 2020-21, Table 1 (line 20) shows the amount of revenue available in FY 2020-21 relative to the amount budgeted to be spent or saved in FY 2019-20. Based on this forecast, the General Assembly will face a $3.3 billion, or 25.3 percent, revenue shortfall in FY 2020-21. This amount assumes current law obligations for FY 2020-21, including transfers and rebates and expenditures (Table 1, lines 9 through 13). The $3.3 billion shortfall is cumulative over the two-year period of FY 2019-20 and FY 2020-21, and reflects carrying the deficit from the ending balance of FY 2019-20 into FY 2020-21. Any changes made to the budget for FY 2019-20 will carry forward into FY 2020-21. In holding FY 2019-20 appropriations constant, this amount does not account for any additional shortfall resulting from the cost of inflation or caseload growth.

Relative to the March forecast, gross General Fund revenue expectations for FY 2020-21 were reduced by $2.42 billion reflecting the impact of the economic downturn on income and sales tax revenues.

Risks to the Forecast

The events that have unfolded over the past two months have dramatically impacted the economy and state revenue. The economic and health policy landscape continue to evolve and as a result, the General Fund budget faces an uncertain outlook with both upside and downside risks to the forecast. The pace of the economic recovery in Colorado and nationally will heavily influence revenue streams, including income and sales tax revenue. These two sources of revenue have historically accounted for about 95 percent of General Fund revenue.

Longer or repeated periods of reduced economic activity to control the spread of COVID-19 will cause more severe and longer lasting revenue impacts. Conversely, near-term development and distribution of a COVID-19 vaccine, a stronger than expected resumption of economic activity, and additional federal fiscal and/or monetary policy support pose near-term upside risks to the forecast.

TABOR Outlook

The state TABOR outlook is presented in Table 2 on page 8 and illustrated in Figure 1 on page 9, which also provides a history of the TABOR limit base and the Referendum C cap.

FY 2018-19. State revenue subject to TABOR exceeded the Referendum C cap by $428.3 million in FY 2018-19. After accounting for a small outstanding refund obligation attributable to underrefunds of prior TABOR surpluses, the state is obligated to refund **$428.5 million** in the current FY 2019-20. TABOR refunds are made to taxpayers first via **property tax exemptions** administered at the county level. The remaining refund obligation triggered a **temporary income tax rate reduction** for 2019 income taxes on returns filed in 2020. The rate reduction refunds FY 2018-19 revenue that was restricted in the General Fund to pay TABOR refunds, and does not reduce income tax revenue credited to the General Fund for FY 2019-20 or subsequent years.

Forecast for FY 2019-20 through FY 2021-22. State revenue subject to TABOR is expected to fall short of the Referendum C cap in all three years of the current forecast period, and the state will not incur an obligation for TABOR refunds. As a result, no refunds to taxpayers are expected to be made via property tax exemptions or refunds using the income tax form through tax year 2022. The state obligation to reimburse counties for homestead exemptions for FY 2020-21 and FY 2021-22 will be paid from General Fund revenue in those years, rather than restricted prior year TABOR surpluses.

Table 1
General Fund Overview
Dollars in Millions

	Funds Available	FY 2018-19 Actual	FY 2019-20 Estimate	FY 2020-21 Estimate	FY 2021-22 Estimate
1	Beginning Reserve	$1,366.0	$1,262.6	-$19.5	*
2	General Fund Revenue	$12,564.6	$11,653.8	$10,306.6	$11,663.7
3	Transfers from Other Funds *(Table 7)*	$38.0	$53.8	$0.7	$1.1
4	**Total Funds Available**	**$13,968.6**	**$12,970.2**	**$10,287.8**	*
5	Percent Change	12.3%	-7.1%	-20.7%	*
	Expenditures	**Actual**	**Budgeted**	**Estimate**	**Estimate**
6	General Fund Appropriations Subject to Limit[1]	$11,230.5	$12,086.2	*	*
7	Adjustments to Appropriations[2]	$28.2	*	*	*
8	TABOR Refund Obligation Under Art. X, §20, (7)(d)[3]	$428.5	$0.0	$0.0	$0.0
9	Rebates and Expenditures *(Table 6)*	$249.8	$141.4	$317.9	$334.3
10	Transfers to Other Funds *(Table 7)*	$219.8	$195.9	$222.8	$240.7
11	Transfers to the State Education Fund (SB 13-234 & SB 19-246)	$25.0	$40.3	$0.0	$0.0
12	Transfers to Transportation Funds *(Table 3)*	$495.0	$300.0	$50.0	$50.0
13	Transfers to Capital Construction Funds *(Table 3)*	$180.5	$225.8	$20.0	$20.0
14	**Total Expenditures**	**$12,857.3**	**$12,989.7**	*	*
15	Percent Change	14.6%	1.0%	*	*
16	Accounting Adjustments[4]	$151.3	*	*	*
	Reserve	**Actual**	**Budgeted**	**Estimate**	**Estimate**
17	Year-End General Fund Reserve	$1,262.6	-$19.5	*	*
18	Year-End Reserve as a Percent of Appropriations	11.2%	-0.2%	*	*
19	Statutorily Required Reserve[5]	$814.2	$876.3	*	*
20	**Amount in Excess or (Deficit) of Statutory Reserve**	**$448.3**	**-$895.8**	*	*
21	Excess Reserve as a Percent of Expenditures	3.5%	-6.9%	*	*
	Perspectives on FY 2020-21 (Unbudgeted)			**Estimate**	**Estimate**
	Scenario: Hold FY 2019-20 Appropriations Constant[6]				
22	Amount in Excess or (Deficit) of 7.25% Statutory Reserve			-$3,285.4	*
23	As a Percent of Prior-Year Expenditures			-25.3%	*
	Addendum	**Actual**	**Estimate**	**Estimate**	**Estimate**
24	Percent Change in General Fund Appropriations	7.6%	7.3%	*	*
25	5% of Colorado Personal Income Appropriations Limit	$14,479.0	$15,537.7	$16,647.1	$17,664.4
26	Transfers to State Education Fund per Amendment 23	$692.8	$629.0	$544.5	$635.2

Totals may not sum due to rounding. * Not estimated.

[1]Includes bills signed into law to date, including the FY 2019-20 supplemental package, HB 20-1019, HB 20-1261, and HB 20-1246.

[2]FY 2018-19 overexpenditures for the Department of Health Care Policy and Financing pursuant to HB 20-1246.

[3]Pursuant to Section 24-75-201 (2), C.R.S., the TABOR refund obligation is required to be set aside during the year it is collected to be refunded in the following fiscal year.

[4]For FY 2018-19, assumes the 2019 Colorado Basic Financial Statements General Fund budgetary fund balance. Also reflects a $0.1 million underfunded for the FY 2014-15 TABOR surplus; this amount is restricted in the General Fund from FY 2014-15 revenue and required to be refunded with the FY 2018-19 TABOR surplus.

[5]The required reserve is calculated as a percent of operating appropriations, and is required to equal 7.25 percent in FY 2018-19 and each year thereafter. Pursuant to SB 18-276, certificates of participation are included in the statutory reserve requirement calculation beginning in FY 2018-19.

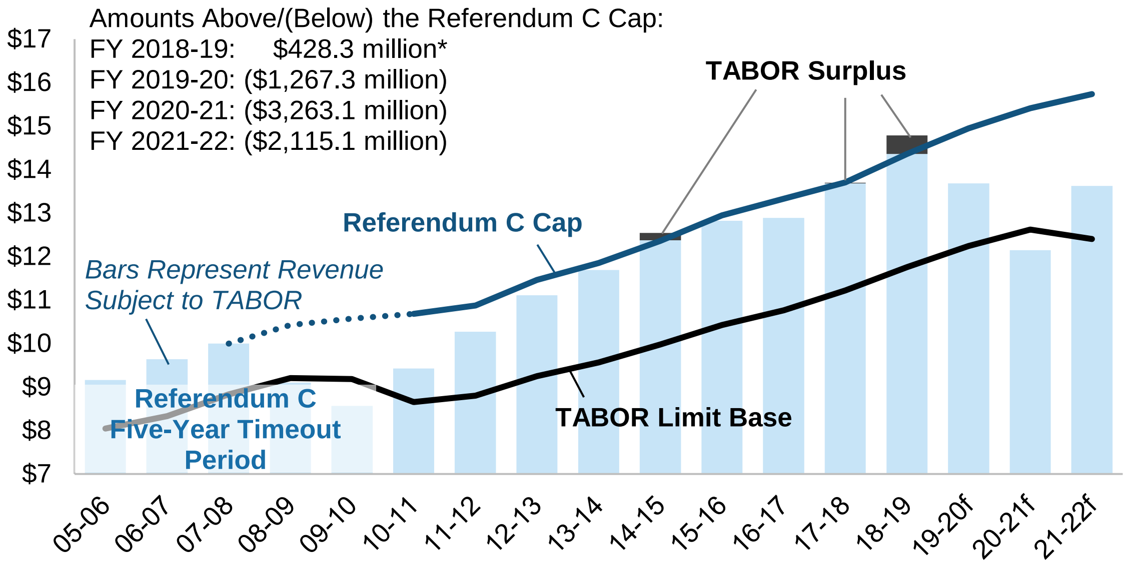
[6]This scenario holds appropriations in FY 2020-21 equal to appropriations in FY 2019-20 (line 6) to determine the total amount of money available relative to FY 2019-20 expenditures, net of the obligations in lines 7 through 13.

Table 2
TABOR Revenue Limit and Retained Revenue
Dollars in Millions

		Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22
	TABOR Revenue				
1	General Fund[1]	$12,350.4	$11,437.2	$10,078.7	$11,415.6
2	Cash Funds	$2,438.0	$2,244.4	$2,070.4	$2,205.2
3	**Total TABOR Revenue**	**$14,788.4**	**$13,681.6**	**$12,149.2**	**$13,620.8**
	Revenue Limit				
4	Allowable TABOR Growth Rate	4.8%	4.1%	3.1%	2.1%
5	Inflation (*from Prior Calendar Year*)	3.4%	2.7%	1.9%	1.2%
6	Population Growth (*from Prior Calendar Year*)	1.4%	1.4%	1.2%	0.9%
7	TABOR Limit Base[2]	$11,759.3	$12,241.5	$12,621.0	$12,404.3
8	Voter Approved Revenue Change (Referendum C)	$2,600.7	$1,440.1	$0.0	$1,216.5
9	Total TABOR Limit / Referendum C Cap	$14,360.1	$14,948.8	$15,412.3	$15,735.9
10	**TABOR Revenue Above** (Below) **Referendum C Cap**	**$428.3**	**($1,267.3)**	**($3,263.1)**	**($2,115.1)**
	Retained/Refunded Revenue				
11	Revenue Retained under Referendum C[2]	$2,600.7	$1,440.1	$0.0	$1,216.5
12	Fiscal Year Spending (*revenue available to be spent or saved*)	$14,360.1	$13,681.6	$12,149.2	$13,620.8
13	Outstanding Underrefund Amount[3]	$0.1			
14	**Revenue Refunded to Taxpayers**[4]	**$428.5**	**$0.0**	**$0.0**	**$0.0**
15	TABOR Reserve Requirement	$430.8	$410.4	$364.5	$408.6

Totals may not sum due to rounding.
[1]General Fund revenue differs from the amount in the General Fund revenue summary because of accounting adjustments across TABOR boundaries.
[2]Revenue retained under Referendum C is referred to as "General Fund Exempt" in the budget.
[3]This amount is restricted in the General Fund as part of the TABOR refund obligation for FY 2014-15.
[4]Revenue above the Referendum C cap is required to be set aside during the year it is collected to be refunded in the following fiscal year. For example, excess revenue collected in FY 2018-19 was set aside in the budget for FY 2018-19 to be refunded in FY 2019-20 on tax returns for tax year 2019.

Figure 1
TABOR Revenue, TABOR Limit Base, and the Referendum C Cap
Dollars in Billions



Source: Office of the State Controller and Legislative Council Staff. f = Forecast.
**The refund amount for FY 2018-19 differs from the surplus amount because it includes underrefunds and other adjustments to previous TABOR surpluses.*

General Fund Transfers to Transportation and Capital Construction

Statutory transfers from the General Fund to transportation and capital construction funds are shown in Table 3. In the General Fund overview shown in Table 1, these transfers are reflected on lines 12 and 13. Other noninfrastructure-related transfers to and from the General Fund are summarized in Table 7, and shown on lines 3 and 10 of Table 1.

Table 3
Infrastructure Transfers from the General Fund
Dollars in Millions

Transportation Funds	2018-19	2019-20	2020-21	2021-22
SB 18-001	$495.0	$200.0	$50.0	$50.0
SB 19-262		$100.0		
Total	**$495.0**	**$300.0**	**$50.0**	**$50.0**

Capital Construction Funds	2018-19	2019-20	2020-21	2021-22
HB 15-1344*		$20.0	$20.0	$20.0
SB 17-262	$60.0	$60.0		
HB 18-1006	$0.7			
HB 18-1340	$119.8			
HB 19-1250		$0.2		
SB 19-172		$0.1		
SB 19-214		$145.5		
Total	**$180.5**	**$225.8**	**$20.0**	**$20.0**

**Transfers are contingent upon requests made by the Capital Development Committee.*

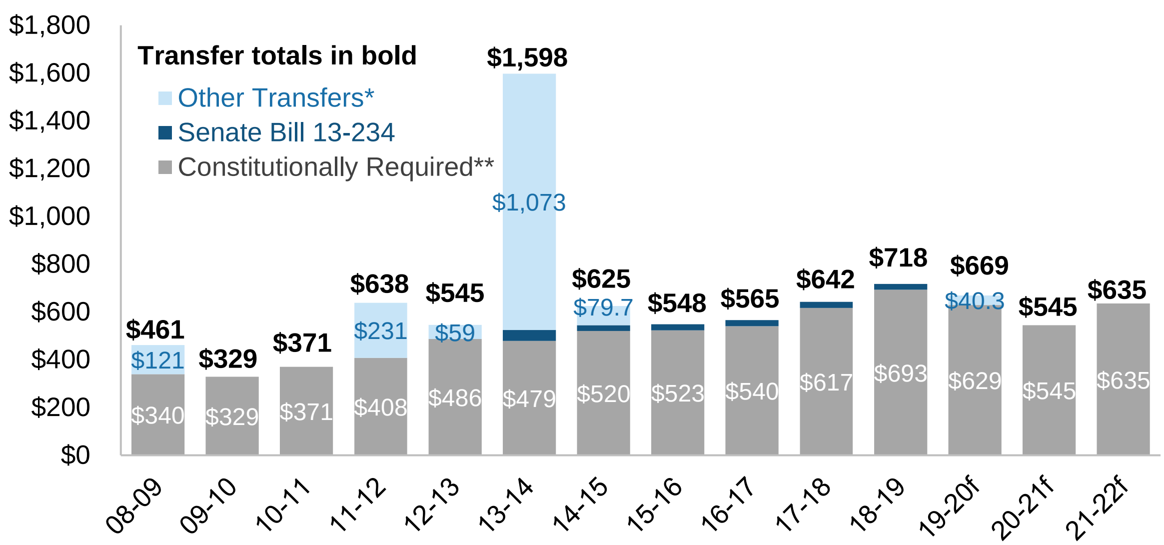
General Fund contributions to transportation. Senate Bill 17-267, which authorized $1.88 billion in certificates of participation (COPs) for transportation projects, requires General Fund appropriations for COP-related lease payments beginning in FY 2018-19. Under current law, these General Fund appropriations are expected to total $100 million annually by FY 2021-22. These appropriations are included in line 6 of Table 1, and not included in Table 3.

Senate Bill 18-001 created one-time General Fund transfers for transportation of $495 million in FY 2018-19 and $150 million in FY 2019-20. These amounts are apportioned to the State Highway Fund, a new Multimodal Transportation Options Fund, and county and municipal governments. Senate Bill 18-001 authorizes 20 years of additional transfers to the State Highway Fund set at $50 million per year beginning in FY 2019-20. Additionally, Senate Bill 19-262 authorized a $100 million transfer to the Highway Users Tax Fund in FY 2019-20 only.

State Education Fund

The Colorado Constitution requires the State Education Fund (SEF) to receive one-third of 1 percent of taxable income. Money in the SEF is required to be used to fund kindergarten through twelfth grade public education. In FY 2019-20, the State Education Fund is expected to receive $629 million as a result of this requirement. Relative to the March 2019 forecast, this May forecast update incorporates reduced expectations for taxable income attributable to COVID-19-related distortions in the economy. As a result, relative to the March 2019 forecast, expectations for this SEF diversion were reduced by $51.1 million in FY 2019-20, and by $143.3 million in FY 2020-21. Expectations for these diversions and other SEF transfers under current law are shown in Figure 2.

Figure 2
Revenue to the State Education Fund
Dollars in Millions



Source: Colorado State Controller's Office and Legislative Council Staff forecast (f).
**Includes transfers under SB 09-260 for FY 2008-09, SB 11-183 and SB 11-156 for FY 2011-12, HB 12-1338 for FY 2012-13 and FY 2013-14, and HB 14-1342 for FY 2014-15, and SB 19-246 for FY 2019-20.*
***One-third of 1 percent of federal taxable income is required to be dedicated to the State Education Fund under Article IX, Section 17 of the Colorado Constitution.*

In addition to the SEF diversion, the General Assembly has at different times authorized the transfer of additional moneys from the General Fund to the SEF (see Table 1, line 11). General Fund transfers to the SEF pursuant to Senate Bill 13-234, which have occurred annually since FY 2013-14, are scheduled to end after FY 2018-19. The 2019 school finance act, Senate Bill 19-246, includes a one-time $40.3 million General Fund transfer to the State Education Fund in FY 2019-20, after which only constitutionally required diversions are scheduled under current law.

Fiscal Policies Dependent on Revenue Conditions

Contingent tax expenditures. Two state tax expenditures are "triggered" by certain state revenue conditions. Table 4 summarizes the availability of these tax policies, each of which is described in greater detail below.

- **The historic preservation income tax credit is available for tax years 2018 and 2019.** The historic preservation income tax credit is available for tax years 2018 and 2019 based on the December 2017 and December 2018 forecasts, respectively. These forecasts expected sufficient revenue to grow appropriations by more than 6.0 percent in FY 2017-18 and FY 2018-19. This credit is repealed beginning tax year 2020.

- **Partial refundability of the conservation easement tax credit is available for tax year 2019, but is not expected to be available for tax years 2020, 2021, or 2022.** The conservation easement income tax credit is available as a nonrefundable credit in most years. In tax years when the state refunds a TABOR surplus, taxpayers may claim an amount up to $50,000, less their income tax liability, as a refundable credit. Because a TABOR surplus was collected in FY 2018-19, the credit was partially refundable for tax year 2019. This forecast update does not expect a TABOR surplus in each of FY 2019-20, FY 2020-21, and FY 2021-22. Therefore, partial refundablility of the credit is not expected to be available for tax years 2020, 2021, or 2022.

Table 4
Availability of Tax Policies Dependent on Revenue Conditions

Fiscal Policy	Availability Criteria	Availability
Historic Property Preservation Income Tax Credit (Section 39-22-514, C.R.S.) *Revenue reduction of less than $1.0 million per tax year**	December forecast immediately before the tax year when the credit becomes available that predicts sufficient General Fund revenue to grow General Fund appropriations by 6 percent.	Available in tax years 2018 and 2019. Repealed in tax year 2020.
Conservation Easement Tax Credit Partial Refundability (Section 39-22-522 (5)(b)(II), C.R.S.) *Revenue reduction of about $5.0 million per tax year**	TABOR surplus.	Available in tax year 2019 due to the FY 2018-19 TABOR surplus. Not expected to be available in tax years 2020, 2021, or 2022.

**Estimates may differ in future analyses.*

Contingent transfers for affordable housing. House Bill 19-1322 created conditional transfers from the Unclaimed Property Trust Fund (UPTF) to the Housing Development Grant Fund for affordable housing projects. These transfers are continent based on the balance in the UPTF as of June 1 and the

Legislative Council Staff June 2021, 2022, and 2023 forecasts. For the fiscal year in which a relevant forecast is published, if revenue subject to TABOR is projected to fall below a "cutoff" amount equal to the projected Referendum C cap minus $30 million dollars, a transfer will be made. The transfer is equal to the greater of $30 million, or the UPTF fund balance. As presented in Table 5, based on this May forecast update, a transfer is expected for both FY 2020-21 and FY 2021-22 because revenue is expected to be below the cutoff. However, the June 2021 and June 2022 forecasts will determine the actual amount of this transfer. A forecast is not yet available for FY 2022-23.

Table 5
Availability of Transfers from the Unclaimed Property Tax Fund Under HB 19-1322

		FY 2020-21 Estimate	FY 2021-22 Estimate	FY 2022-23 Estimate
1	Forecast that Determines Availability	June 2021	June 2022	June 2023
2	Available UPTF Balance*	$126.3 million	$126.3 million	Forecast not yet available.
3	Referendum C Cap	$15,412.3 million	$15,735.9 million	
4	Transfer Cutoff *(line 3 minus $30 million)*	$15,382.3 million	$15,705.9 million	
5	Revenue Subject to TABOR	$12,149.2 million	$13,620.8 million	
6	Revenue Above or (Below) Cutoff	($3,233.1 million)	($2,085.1 million)	
7	**Transfer Amount****	**$30.0 million**	**$30.0 million**	

**The estimate of the available balance in the UPTF is based on the most recent five-year average.*
***Actual transfer amounts will depend on the UPTF fund balance and future forecast expectations.*

Table 6
General Fund Rebates and Expenditures
Dollars in Millions

Category	Actual FY 2018-19	Percent Change	Estimate FY 2019-20	Percent Change	Estimate FY 2020-21	Percent Change	Estimate FY 2021-22	Percent Change
Senior and Veterans Property Tax Exemptions	$145.9	10.3%	$152.1	4.2%	$163.6	7.5%	$170.0	4.0%
TABOR Refund Mechanism[1]	-$39.5		-$152.1		$0.0		$0.0	
Cigarette Rebate	$9.4	-3.8%	$9.4	0.2%	$8.6	-7.8%	$8.3	-3.7%
Old Age Pension Fund	$86.8	-4.9%	$83.0	-4.4%	$92.0	10.9%	$98.8	7.4%
Aged Property Tax and Heating Credit	$5.5	13.0%	$5.8	4.5%	$9.1	56.4%	$10.2	12.4%
Older Coloradans Fund	$10.0	-60.0%	$10.0	0.0%	$10.0	0.0%	$10.0	0.0%
Interest Payments for School Loans	$7.4	48.3%	$6.5	-11.9%	$6.7	2.7%	$6.9	3.0%
Firefighter Pensions	$4.2	-3.4%	$4.3	1.4%	$4.4	2.7%	$4.5	2.7%
Amendment 35 Distributions	$0.8	-2.7%	$0.8	-2.3%	$0.7	-5.9%	$0.7	-2.0%
Marijuana Sales Tax Transfer to Local Governments	$19.3	11.5%	$21.7	12.4%	$22.8	5.2%	$24.8	8.9%
Total Rebates and Expenditures	**$249.8**	**-14.1%**	**$141.4**	**-43.4%**	**$317.9**	**124.9%**	**$334.3**	**5.2%**

Totals may not sum due to rounding.

**Pursuant to SB 17-267, local government reimbursements for these property tax exemptions are the first TABOR refund mechanism used to meet the prior year's refund obligation.*

Table 7
Cash Fund Transfers
Dollars in Millions

Transfers to the General Fund		**2018-19**	**2019-20**	**2020-21**	**2021-22**
HB 05-1262	Amendment 35 Tobacco Tax	$0.8	$0.8	$0.7	$0.7
SB 13-133 & SB 18-191	Limited Gaming Fund	$16.4	$0.0	$0.0	$0.4
SB 17-265 & SB 19-208	State Employee Reserve Fund		$23.0		
HB 18-1338	Reduced Revenue Severance Tax Transfers	$20.8			
SB 19-158	Pet Animal Care and Facility Fund		$0.01	$0.01	$0.01
SB 19-261	Unclaimed Property Trust Fund		$30.0		
Total Transfers to the General Fund		**$38.0**	**$53.8**	**$0.7**	**$1.1**
Transfers from the General Fund		**2018-19**	**2019-20**	**2020-21**	**2021-22**
SB 11-047	Bioscience Income Tax Transfer to OEDIT	$6.9	$6.4	$5.6	$6.6
SB 14-215	Marijuana Tax Cash Fund	$125.0	$140.1	$147.4	$160.5
HB 14-1016[1]	Procurement Technical Assistance Cash Fund	$0.2	$0.2		
SB 15-244 & SB 17-267	State Public School Fund	$20.1	$24.5	$25.8	$28.1
HB 16-1161[2]	Older Coloradans Fund & Veterans Grant Program Fund (conditional)	$16.9	$0.0		
HB 16-1288	Industry Infrastructure Fund	$0.3			
SB 17-255	Technology Advancement and Emergency Fund	$2.0			
HB 18-1323	Pay For Success Contracts Pilot Program Funding	$0.4	$0.5	$0.5	$0.4
HB 18-1338	Reduced Revenue Severance Tax Transfers	$27.4			
HB 18-1363	Recommendations Of Child Support Commission	$0.04	$0.04	$0.04	$0.04
HB 18-1357	Behavioral Health Care Ombudsperson Parity Reports	$0.01			
HB 18-1423	Rural Fire Protection District Equipment Grants	$0.3			
SB 18-016[3]	Transitioning from Criminal & Juvenile Justice System	$0.4	$0.0	$0.0	$0.0
SB 18-132	1332 State Waiver Catastrophic Health Plans	$0.01			
SB 18-280	Tobacco Litigation Settlement Cash Fund	$20.0			
HB 19-1026	Parks and Wildlife Fines		$0.4	$0.4	$0.4
HB 19-1147	Traumatic Brain Injury Program		$0.5		
HB 19-1168 & HB 19-1245	Reinsurance Cash Fund		$15.0	$40.0	$0.0
HB 19-1174, HB 19-1216, HB 19-1233, HB 19-1269, HB 19-1283	Division of Insurance Cash Fund for Out-of-Network Health Care Services, Insulin Prices, Investments in Primary Care, Mental Health Parity, and Disclosure of Insurance Liability Coverage		$0.3	$0.2	$0.2
HB 19-1245	Housing Development Grant Fund		$8.0	$2.8	$44.4
Total Transfers from the General Fund		**$219.8**	**$195.9**	**$222.8**	**$240.7**
Net General Fund Impact		**($181.8)**	**($142.1)**	**($222.0)**	**($239.6)**

[1]*The transfer is contingent upon the receipt of at least $200,000 in gifts, grants, and donations by the relevant contractor.*

[2]*HB 16-1161 requires transfers to the Older Coloradans Fund (95%) and the Veterans Assistance Grant Program Cash Fund (5%) of any excess General Fund moneys set aside for reimbursements to local governments for the Senior Homestead and Disabled Veteran property tax exemptions.*

[3]*SB 18-016 transfers any unexpended Department of Public Safety appropriation for community corrections to a Department of Local Affairs cash fund for transitional offender housing. There were no unexpended appropriations for FY 2018-19 and no transfer was made. This forecast assumes that all future community corrections appropriations will be expended and that no transfer will be made in future years.*

General Fund Revenue

This section presents the Legislative Council Staff outlook for General Fund revenue, the state's main source of funding for operating appropriations. Table 8 on page 20 summarizes General Fund revenue collections for FY 2018-19 and projections for FY 2019-20 through FY 2021-22.

FY 2019-20. General Fund revenue collections are expected to decrease 7.2 percent during the current fiscal year to total $11.7 billion. Expectations were reduced $892.8 million, or 7.1 percent, relative to the March 2020 forecast. The downward revision is associated with significant downgrades to the economic outlook for the remainder of 2020, including expectations for a deep recession. The March forecast was published before the announcement of a statewide stay-at-home order and closure of nonessential businesses, and did not anticipate the degree of lost consumer spending, wages, and business incomes that have manifested to date. The sudden stop in economic activity will reduce sales tax revenue and individual and corporate income tax revenue to a greater extent than expected in March.

General Fund revenue expectations for FY 2019-20 exclude the amount the state received from the federal government's Coronavirus Relief Fund under the CARES Act, as this amount was not credited to the General Fund.

FY 2020-21. Revenue collections are expected to fall 11.6 percent further from reduced FY 2019-20 levels and total $10.3 billion. Revenue expectations were reduced $2.4 billion, or 19.0 percent, relative to the March 2020 forecast. The downward revision reflects expectations for a deep economic recession during 2020 that will impact all revenue streams over the entire fiscal year.

FY 2021-22. Revenue is expected to rebound, increasing 13.2 percent in FY 2021-22 to total $11.7 billion. The forecast anticipates growth from low levels as business and consumer activity begin to recover after the recession.

Risks to the forecast. The outlook for revenue remains uncertain in light of the evolving COVID-19 crisis. This uncertainty poses significant upside and downside risks to the General Fund revenue forecast. The pace at which economic activity resumes across the many impacted industries will affect income and sales tax revenue, and longer periods of reduced activity will cause more permanent closures and longer-term economic and revenue impacts. In contrast, development and distribution of a vaccine for the virus pose upside risk, as does additional fiscal and/or monetary policy support from the federal government to businesses, households, and state and local governments. Finally, spring 2020 tax payment deadlines were delayed until July. This change will impact when revenue is collected. Depending on how state accountants implement accrual adjustments for tax payments, more (or less) revenue may be shifted into FY 2019-20 from FY 2020-21. This will not impact the total amount collected over the two year period.

Expiring tax expenditures. This forecast estimates state revenue under current state and federal law. Under current state law, certain tax expenditures available now are scheduled to expire within the forecast period. Where applicable, the forecast includes upward adjustments to revenue projections to account for the expiration of these tax expenditures.

Individual income tax. Individual income tax revenue is the largest source of General Fund revenue; it accounted for just over 60 percent of FY 2018-19 revenue, net of the SEF diversion. Individual income tax revenue is expected to decrease sharply, falling 7.3 percent in FY 2019-20 and 11.8 percent in FY 2020-21, as discussed below.

FY 2019-20. Individual income tax revenue is expected to decline 7.3 percent, or $0.6 billion, to total $7.6 billion. Relative to the March forecast, expectations for individual income tax revenue were reduced by 7.7 percent, consistent with downgrades to expectations for wages and business income during initial months of the COVID-19 crisis.

Income tax revenue will fall with significant decreases in wage withholding and estimated tax payments for the period between March and June 2020. Taxes withheld from paychecks will decline because employers have temporarily suspended operations, or permanently closed, in response to the crisis. Estimated tax payments are made by taxpayers with nonwage income, such as business owners and investors. These payments reflect taxpayer expectations for their tax liability for the full tax year, which have fallen to zero for business owners who expect their businesses to incur losses during 2020.

The outlook for revenue remains uncertain even with actual collections data for ten months of the fiscal year due to the severe economic downturn and changes in the timing of tax payments. Pursuant to Governor Polis' Executive Orders D 2020 010 and D 2020 040, the following income tax filing and payment deadlines have been extended until July 15, 2020:

- the deadline to file and pay income taxes for the 2019 tax year, which would otherwise have been April 15, 2020;
- the deadline to make estimated income tax payments for the first quarter of the 2020 tax year, which would otherwise have been April 15, 2020; and
- the deadline to make estimated income tax payments for the second quarter of the 2020 tax year, which would otherwise have been June 15, 2020.

Because taxpayers may wait until July to file their returns or make estimated payments, significantly less tax data are available now than at a similar point in a normal fiscal year. This complicates the ability to isolate the revenue impacts of the economic downturn from filing distortions. For example, the Department of Revenue reports that, through April, less than 381,000 individual taxpayers had filed returns with balances due, compared with nearly 614,000 through April 2019. Many income tax payments that would otherwise be made in April or June are being delayed into July, during FY 2020-21. Because these payments reflect economic activity that occurred during FY 2019-20, state accountants will shift them out of FY 2020-21 and into FY 2019-20 by means of an accrual adjustment.

FY 2020-21. Individual income tax revenue is expected to fall 11.8 percent further to total $6.7 billion, consistent with expectations for declining wage, business, and investment income during the fiscal year. Individual income tax revenue for both FY 2019-20 and FY 2020-21 is also expected to decrease as a result of changes in the computation of taxable income under the federal CARES Act, discussed in additional detail below.

For comparison, individual income tax revenue declined 17.9 percent between its peak in FY 2007-08 and its trough in FY 2009-10. This forecast assumes a similar decline of 18.2 percent between FY 2018-19 and FY 2020-21. There are reasons to expect that the current recession could reduce income tax revenue to a larger extent than the Great Recession did. For example, job losses during the present recession have been more immediate and more significant than during the Great Recession. Revenue is falling from tax years 2018 and 2019, when taxpayers accelerated economic activity in order to take advantage of the federal tax cuts enacted in the Tax Cuts and Jobs Act of 2017. Additionally, COVID-related losses are being compounded by a simultaneous collapse in oil prices, which has historically suppressed income tax revenue associated with oil producers and a slew of downstream industries.

The extent of revenue loss will ultimately depend on factors that are unknown at this time, like when normal consumer activity will resume in many industries and whether and when a COVID-19 vaccine can be developed and distributed. Grants and loans provided by the federal government may also ameliorate a portion of the revenue decrease to the extent that they keep businesses from shuttering permanently. For these reasons, the FY 2020-21 forecast contains significant risk to both the downside and the upside.

FY 2021-22. Individual income tax revenue is projected to rebound significantly, rising 17.4 percent to total $7.9 billion. The outlook for FY 2021-22 depends on whether the health and safety concerns expected to limit economic activity have been overcome. This forecast assumes a return to unconstrained economic behavior in FY 2021-22, but even under such a scenario, the recession will have lasting impacts, keeping income tax revenue below FY 2018-19 levels. Depending on the secondary impacts of the recession, and duration and severity of additional actions to contain COVID-19, economic activity may be suppressed for a longer period of time, resulting in income tax revenue below forecast.

CARES Act. President Trump signed the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) into law on March 27, 2020. The CARES Act includes several provisions expected to affect state revenue, of which the largest are:

- allowing the deduction of “excess” losses by non-corporate businesses that would otherwise exceed a threshold established in the Tax Cuts and Jobs Act of 2017;
- allowing net operating losses for individuals, estates, and trusts to be carried back for up to five years, and delimiting the amount by which these losses may be used to reduce taxable income;
- increasing the percentage of business interest income that is tax deductible; and
- suspending required minimum distributions from retirement funds, allowing some retirees to let their fund balances recover before making distributions and incurring tax liability.

The CARES Act is expected to reduce federal taxable income for tax years 2018 through 2020, thereby reducing Colorado taxable income in each of those years. Taxpayers will be able to amend 2018 and 2019 tax returns in order to benefit from the additional deductions, which will reduce state income tax revenue when the amended returns are processed and a portion of taxes are refunded to taxpayers. Across all provisions, the CARES Act is preliminarily assessed as reducing Colorado individual income tax revenue by $121 million for FY 2019-20 and $135 million for FY 2020-21; these estimates are subject to change as more information becomes available.

TABOR refund mechanism. The FY 2018-19 TABOR surplus triggered a temporary income tax rate reduction for tax year 2019. This TABOR refund mechanism temporarily reduces the state income tax rate from 4.63 percent to 4.50 percent for one year only. The rate reduction refunds revenue collected during FY 2018-19 that has been restricted in the General Fund to pay refunds required in FY 2019-20.

Corporate income tax. After reaching record levels in FY 2018-19, corporate income tax revenue will decline in each of the next two fiscal years. In FY 2018-19, corporate income tax revenue totaled $919.8 million, the highest level of collections in the state's history. Revenue growth was primarily driven by a strong economy, federal tax law changes that took effect in 2018, and a large audit concluded by the Department of Revenue in 2019.

Corporate income tax revenue is expected to drop by 21.4 percent to $722.9 million in FY 2019-20 and decline by an additional 38.1 percent to $447.6 million in FY 2020-21 as the global economic shock caused by the COVID-19 pandemic and steep declines in oil prices ripple through the economy and manifest in reduced payments.

Corporate income tax revenue is volatile, and the revenue stream has significant exposure to at least two sectors that are expected to suffer significant hits: the oil and gas industry and the travel industry. To the extent that economic performance falls short of expectations, corporate income tax revenue will likewise be lower than forecast. This forecast expects an immediate reduction in corporate income tax revenue in the last two months of the current fiscal year and weakness throughout calendar year 2020. In addition, the extension of the tax deadline to July 15 will cause further distortions for corporate income revenue. Compared with the March 2020 forecast, expectations for corporate income tax collections were reduced $69.3 million in FY 2019-20 and $273.3 million in FY 2020-21.

Sales taxes. The 2.9 percent state sales tax is assessed on the purchase of goods, except those specifically exempted, and a relatively small collection of services. Sales tax receipts are expected to decrease 1.0 percent to total $3.0 billion during the current FY 2019-20, before experiencing an 8.6 percent drop in FY 2020-21, which would be the sharpest year-over-year decline in decades. A 5.3 percent rebound in growth is expected in FY 2021-22.

Sales tax receipts experienced strong growth fiscal year-to-date through February, largely attributable to legislative changes in House Bill 19-1240 and House Bill 19-1245, before the statewide shut down in mid-March. During March and April, based on national retail sales and personal consumption expenditure data to date, consumer spending declined across most sectors except for essential goods, home improvement spending, and online sales. The sectors facing the strongest headwinds moving forward include food services, accommodation, travel, and entertainment industries, since large gatherings are restricted indefinitely. Auto sales, which comprise the largest percent of sales tax revenue, dipped by 50 percent nationally from March 1 to April 30. Retail locations face strict restrictions on reopening, and spending will depend on consumer confidence related to both the virus and economic conditions. Job losses, low inflation, and lower population growth will also constrain sales tax collections through the forecast period.

Use taxes. The 2.9 percent state use tax is due when sales tax is owed, but is not collected at the point of sale. Use tax revenue is largely driven by capital investment among manufacturing, energy, and mining firms. Revenue is expected to fall during FY 2019-20 by 45.6 percent, before recovering with 8.6 percent growth in FY 2020-21 and 5.9 percent growth in FY 2021-22. Oil and gas industry capital expenditures have been cut significantly, with many companies halting most new drilling for the year.

Legislative changes and the rules promulgated by the Department of Revenue to collect out-of-state retail sales tax will gradually convert retail use tax collections, around 7 percent of total use tax collections as of 2018, to sales tax collections. This trend will also put significant downward pressure on use tax collections throughout the forecast period.

Table 8
General Fund Revenue Estimates
Dollars in Millions

	Category	Actual FY 2018-19	Percent Change	Estimate FY 2019-20	Percent Change	Estimate FY 2020-21	Percent Change	Estimate FY 2021-22	Percent Change
	Excise Taxes								
1	Sales	$3,054.0	4.4	$3,022.7	-1.0	$2,762.6	-8.6	$2,909.1	5.3
2	Use	$345.5	11.5	$187.9	-45.6	$203.9	8.6	$215.9	5.9
3	Retail Marijuana Sales	$193.2	14.9	$216.6	12.1	$227.9	5.2	$248.2	8.9
4	Cigarette	$32.6	-5.8	$32.1	-1.6	$29.5	-7.8	$28.5	-3.7
5	Tobacco Products	$22.3	35.8	$19.1	-14.5	$28.9	51.5	$25.3	-12.3
6	Liquor	$48.3	3.9	$49.5	2.5	$48.2	-2.6	$50.8	5.4
7	**Total Excise**	$3,695.9	5.5	$3,527.9	-4.5	$3,301.1	-6.4	$3,477.8	5.4
	Income Taxes								
8	Net Individual Income	$8,247.0	8.8	$7,646.4	-7.3	$6,747.4	-11.8	$7,923.2	17.4
9	Net Corporate Income	$919.8	17.6	$722.9	-21.4	$447.6	-38.1	$531.3	18.7
10	Total Income Taxes	$9,166.8	9.7	$8,369.3	-8.7	$7,195.0	-14.0	$8,454.4	17.5
11	Less: Portion Diverted to the SEF	-$692.8	12.3	-$629.0	-9.2	-$544.5	-13.4	-$635.2	16.7
12	**Income Taxes to the General Fund**	$8,474.0	9.5	$7,740.3	-8.7	$6,650.5	-14.1	$7,819.2	17.6
	Other Sources								
13	Estate	$0.0	NA	$0.0	NA	$0.0	NA	$0.0	NA
14	Insurance	$314.7	3.6	$320.8	1.9	$301.2	-6.1	$310.9	3.2
15	Pari-Mutuel	$0.5	-1.7	$0.5	-9.3	$0.5	8.7	$0.5	-4.0
16	Investment Income	$26.5	35.8	$26.9	1.6	$15.3	-43.2	$16.3	6.5
17	Court Receipts	$4.2	-5.3	$3.8	-8.3	$3.7	-2.9	$4.3	16.2
18	Other Income	$48.9	25.7	$33.7	-31.2	$34.3	2.0	$34.8	1.4
19	**Total Other**	$394.7	-17.8	$385.6	-2.3	$355.1	-7.9	$366.8	3.3
20	**Gross General Fund Revenue**	**$12,564.6**	**7.2**	**$11,653.8**	**-7.2**	**$10,306.6**	**-11.6**	**$11,663.7**	**13.2**

Totals may not sum due to rounding. NA = Not applicable. SEF = State Education Fund.

Cash Fund Revenue

Table 9 summarizes the forecast for cash fund revenue subject to TABOR. The largest revenue sources are motor fuel taxes and other transportation-related revenue, gaming taxes, and severance taxes. The end of this section also presents the forecasts for marijuana sales and excise tax, Federal Mineral Lease, and unemployment insurance revenue. These forecasts are presented separately because they are not subject to TABOR limitations.

FY 2018-19. Final figures from the Office of the State Controller indicate cash fund revenue subject to TABOR totaled $2.44 billion in FY 2018-19, an increase of $133.7 million or 5.8 percent from the prior fiscal year. The most significant increase was in severance tax collections, which grew by $112.2 million, or 78.4 percent. The improvement in oil and gas production activity and in rising prices aided taxes levied on the extraction of natural resources. Transportation-related revenue, the largest source of cash fund revenue subject to TABOR, was flat, adding just over $500,000, as the pace of economic expansion slowed.

Forecast for FY 2019-20 through FY 2021-22. Total cash fund revenue subject to TABOR in the current FY 2019-20 is expected to total $2.24 billion, a decline of 7.9 percent from the prior year. The crude oil market rout and drop in travel activity due to COVID-19-related disruptions that began to meaningfully affect the state in early March are expected to impact several cash fund sources in the current and following fiscal year. Specifically, revenue to transportation-related, gaming, and severance cash funds are expected to decline in FY 2019-20 and FY 2020-21 before picking up in FY 2021-22.

Transportation-related revenue subject to TABOR is expected to decrease 6.0 percent in FY 2019-20, with most of the decrease attributable to falling motor fuel consumption between March and June of 2020. Transportation-related revenue will decline an additional 2.8 percent in FY 2020-21 before growing by 4.0 percent in FY 2021-22. The forecast for TABOR revenue to transportation-related cash funds is shown in Table 10.

The largest source of transportation-related revenue is the motor fuel excise tax credited to the Highway Users Tax Fund (HUTF). Fuel tax remittances declined by 1.6 percent over the first nine months of FY 2019-20, reflecting a modest decrease in the amount of fuel distributed between June 2019 and February 2020. Taxes on fuel distributed between March 2020 and May 2020 have not yet been recorded. Over this period, fuel taxes are expected to decline by 35 percent relative to year-ago levels, based on severe decreases in vehicle traffic observed by the Colorado Department of Transportation during the statewide stay-at-home order. Fuel tax collections will remain subdued through 2020 as businesses remain closed, employees work remotely, and tourist visitations dry up. Through the forecast period, fuel tax collections are expected to remain below FY 2018-19 levels as the economy emerges from a deep recession.

Vehicle registration fees, which are also credited to the HUTF, exhibited distortions in FY 2018-19 and FY 2019-20 following migration to the Division of Motor Vehicles' new software system, DRIVES. Registration fee revenue is expected to decline during FY 2020-21, consistent with fewer expected auto sales. COVID-related travel restrictions are expected to devastate vehicle rentals, with the attendant decline in daily vehicle rental fees driving large decreases in other HUTF receipts during FY 2019-20 and FY 2020-21.

The State Highway Fund (SHF) receives money primarily from HUTF allocations, interest earnings, and local government matching grants. HUTF revenue is subject to TABOR when initially collected but not double-counted for TABOR purposes when distributed to the SHF, and is for this reason omitted from SHF revenue in Table 10. Following a March 2020 Attorney General opinion, local government matching grants will not be accounted as subject to TABOR, reducing SHF revenue shown in Table 10 for FY 2019-20 and subsequent years. Fewer HUTF allocations and local government funds are expected to limit the SHF balance, reducing interest earnings in the fund through the forecast period.

Other transportation cash fund revenue subject to TABOR is expected to decline in each of FY 2019-20 and FY 2020-21 before rebounding in FY 2021-22. Weaker collections are attributable to large expected declines in aviation fuel excise tax revenue, which is subdued on both low oil prices and drastically reduced demand, and on lower-than-expected registration-related fees. Revenue to the **Statewide Bridge Enterprise** is not subject to TABOR and is shown as an addendum to Table 10.

Table 9
Cash Fund Revenue Subject to TABOR
Dollars in Millions

	Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Transportation-Related	$1,275.9	$1,199.0	$1,165.3	$1,211.5	
Percent Change	0.0%	-6.0%	-2.8%	4.0%	-1.7%
Severance Tax	$255.2	$140.4	$23.3	$54.4	
Percent Change	78.4%	-45.0%	-83.4%	133.3%	-40.3%
Gaming Revenue[1]	$107.0	$65.9	$69.4	$76.9	
Percent Change	0.1%	-38.4%	5.3%	10.8%	-10.4%
Insurance-Related	$22.6	$24.6	$19.8	$20.2	
Percent Change	26.7%	9.0%	-19.7%	2.3%	-3.6%
Regulatory Agencies	$78.8	$79.2	$77.7	$78.5	
Percent Change	-2.1%	0.5%	-1.9%	1.1%	-0.1%
Capital Construction-Related Interest[2]	$4.7	$6.2	$3.3	$2.2	
Percent Change	1.6%	31.4%	-47.7%	-31.7%	-22.3%
2.9% Sales Tax on Marijuana[3]	$10.8	$12.0	$12.2	$12.4	
Percent Change	-33.1%	11.8%	1.4%	1.8%	4.9%
Other Cash Funds	$683.0	$717.1	$699.5	$749.1	
Percent Change	3.5%	5.0%	-2.5%	7.1%	3.1%
Total Cash Fund Revenue[4]	**$2,438.0**	**$2,244.4**	**$2,070.4**	**$2,205.2**	
Subject to the TABOR Limit	5.8%	-7.9%	-7.7%	6.5%	-3.3%

Totals may not sum due to rounding.
**CAAGR: Compound average annual growth rate for FY 2018-19 to FY 2021-22.*
[1]Gaming revenue in this table does not include Amendment 50 revenue because it is not subject to TABOR.
[2]Includes interest earnings to the Capital Construction Fund, the Controlled Maintenance Trust Fund, and transfers from certain enterprises.
[3]Includes revenue from the 2.9 percent sales tax collected from the sale of medical and retail marijuana. This revenue is subject to TABOR.

Table 10
Transportation Revenue by Source
Dollars in Millions

	Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Highway Users Tax Fund (HUTF)					
Motor and Special Fuel Taxes	$654.9	$591.6	$586.4	$615.9	-2.0%
Percent Change	-0.1%	-9.7%	-0.9%	5.0%	
Total Registrations	$382.7	$401.0	$391.5	$397.7	1.3%
Percent Change	-0.2%	4.8%	-2.4%	1.6%	
Registrations	*$229.1*	*$236.9*	*$231.9*	*$235.6*	
Road Safety Surcharge	*$132.2*	*$140.8*	*$137.8*	*$140.0*	
Late Registration Fees	*$21.4*	*$23.2*	*$21.8*	*$22.1*	
Other HUTF Receipts[1]	$71.1	$63.9	$54.7	$61.5	-4.7%
Percent Change	1.7%	-10.1%	-14.4%	12.4%	
Total HUTF	**$1,108.7**	**$1,056.6**	**$1,032.6**	**$1,075.1**	-1.0%
Percent Change	0.1%	-4.7%	-2.3%	4.1%	
State Highway Fund (SHF)[2]	$39.9	$29.7	$28.6	$23.7	-15.9%
Percent Change	-1.8%	-25.5%	-3.7%	-17.2%	
Other Transportation Funds	$127.4	$112.7	$104.1	$112.7	-4.0%
Percent Change	-1.2%	-11.5%	-7.7%	8.2%	
Aviation Fund[3]	*$33.7*	*$26.9*	*$19.9*	*$27.5*	
Law Enforcement-Related[4]	*$8.6*	*$8.5*	*$8.4*	*$8.3*	
Registration-Related[5]	*$85.1*	*$77.3*	*$75.8*	*$76.9*	
Total Transportation Funds	**$1,275.9**	**$1,199.0**	**$1,165.3**	**$1,211.5**	-1.7%
Percent Change	-0.1%	-6.0%	-2.8%	4.0%	

Totals may not sum due to rounding.

**CAAGR: Compound average annual growth rate for FY 2018-19 to FY 2021-22.*

[1]Includes daily rental fee, oversized overweight vehicle surcharge, interest receipts, judicial receipts, drivers' license fees, and other miscellaneous receipts in the HUTF.

[2]Includes only SHF revenue subject to TABOR. Beginning in FY 2019-20, SHF revenue subject to TABOR no longer includes des local government grants and contracts.

[3]Includes revenue from aviation fuel excise taxes and the 2.9 percent sales tax on the retail cost of jet fuel.

[4]Includes revenue from driving under the influence (DUI) and driving while ability impaired (DWAI) fines.

[5]Includes revenue from Emergency Medical Services registration fees, emissions registration and inspection fees, motorcycle and motor vehicle license fees, and POST Board registration fees.

Addendum: TABOR-Exempt FASTER Revenue

	Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Bridge Safety Surcharge	$116.2	$118.1	$119.4	$120.2	2.9%
Percent Change	3.6%	1.6%	1.1%	0.7%	

Note: Revenue to the Statewide Bridge Enterprise from the bridge safety surcharge is TABOR-exempt and therefore not included in the table above. It is included as an addendum for informational purposes.

Severance tax revenue, including interest earnings, totaled $255.2 million in FY 2018-19 and is expected to total $140.4 million in FY 2019-20 before falling to $23.3 million in FY 2020-21. Severance tax revenue is more volatile than other revenue sources due to the boom-bust nature of the oil and gas sector and Colorado's tax structure. The forecast for the major components of severance tax revenue is shown in Table 11.

Severance tax collections from **oil and natural gas** totaled $235.7 million in FY 2018-19 and are forecast to decline 45.6 percent in FY 2019-20 to $128.3 million based on year-to-date collections that reflect activity in 2019. Oil and natural gas severance tax revenue will decline 90.6 percent in FY 2020-21 to $12.1 million, as low oil prices will significantly constrain the U.S. oil and gas sector and result in production cuts. Additionally, the ad valorem tax credit will reduce severance tax liabilities.

Table 11
Severance Tax Revenue Forecast by Source
Dollars in Millions

	Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Oil and Gas	$235.7	$128.3	$12.1	$43.6	-43.0%
Percent Change	86.8%	-45.6%	-90.6%	260.9%	
Coal	$3.6	$2.6	$2.0	$1.9	-19.3%
Percent Change	-4.9%	-28.0%	-22.8%	-5.4%	
Molybdenum and Metallics	$2.4	$2.3	$1.7	$1.8	-9.5%
Percent Change	-15.0%	-6.8%	-24.3%	5.0%	
Total Severance Tax Revenue	**$241.7**	**$133.1**	**$15.8**	**$47.2**	-42.0%
Percent Change	82.0%	-44.9%	-88.2%	199.5%	
Interest Earnings	$13.5	$7.2	$7.6	$7.2	-18.9%
Percent Change	32.1%	-46.5%	4.6%	-4.9%	
Total Severance Tax Fund Revenue	**$255.2**	**$140.4**	**$23.3**	**$54.4**	-40.3%
Percent Change	78.4%	-45.0%	-83.4%	133.3%	

**CAAGR: Compound average annual growth rate for FY 2018-19 to FY 2021-22.*

Global oil prices declined 24 percent on March 9, 2020, the second largest one-day decline on record as Russia and Saudi Arabia abandoned supply levels to keep global oil supply balanced and moved to capture market share. Following COVID-19 outbreaks and shutdowns across Asia and Europe, U.S. states began implementing stay-at-home orders in the weeks following, significantly dampening demand for oil. Transportation consumption accounts for about 70 percent of oil demand in the U.S. With few people driving and air travel all but stopped, demand will remain low until activity resumes.

In a historic deal, the U.S. aligned with OPEC+ in agreeing to oil production cuts to respond to the approximate 30 percent drop in global oil demand. With oil storage facilities nearing capacity, drilling activity and production has slowed in Colorado, with wells being shut in and capital expenditures cut significantly. Property taxes for 2019 have already been paid on near historic production levels, which will reduce severance taxes to $0 for many oil wells in 2020 through the ad valorem credit. This forecast is consistent with average Colorado oil prices of $30.60 per barrel in 2020 and $38.82 per barrel in 2021. Natural gas prices are forecast at $1.95 per thousand cubic feet in 2020 and $2.66 per thousand cubic feet in 2021.

It is unclear how far production of oil and natural gas will fall as a result of prolonged low oil prices. Resumption of production will depend on demand increasing in both the U.S. and globally; however, with most production going into storage this spring, prices will remain subdued through the forecast period.

More information about the oil and gas severance tax can be found in the Legislative Council Staff memo posted here: http://leg.colorado.gov/publications/effective-tax-rates-oil-and-natural-gas.

Coal severance tax revenue declined 4.9 percent in FY 2018-19 and will decline through the forecast period as electricity generation continues to transition away from coal to renewable sources and natural gas. Based on current year-to-date collections, coal severance taxes are expected to decline 28.0 percent in FY 2019-20 to $2.6 million and 22.8 percent to $2.0 million in FY 2020-21.

Metal and molybdenum mines are expected to pay $2.3 million in severance taxes on the value of minerals produced in FY 2019-20 and $1.7 million in FY 2020-21. Mining activity at the two molybdenum mines in Colorado, the Climax Mine outside Leadville and the Henderson Mine outside Empire, is fairly constant when the mines are in operation.

Finally, interest earnings on severance tax revenue are expected to total $7.2 million in FY 2019-20 and $7.6 million in FY 2020-21. Interest earnings in FY 2019-20 will be based on a higher average balance in severance tax accounts following the passage of Senate Bill 19-016; however, lower severance tax revenue will reduce this amount.

Limited gaming revenue forecasts include taxes, fees, and interest earnings collected in the Limited Gaming Fund and the State Historical Fund. Most of this revenue is subject to TABOR. Revenue attributable to Amendment 50, which expanded gaming beginning in FY 2009-10, is TABOR-exempt. The state limited gaming tax is a graduated tax assessed on casino adjusted gross proceeds, the amount of wagers collected less the amount paid to players in winnings, in the three state-sanctioned gaming municipalities: Black Hawk, Central City, and Cripple Creek. Casinos on tribal lands in southwestern Colorado are not subject to the state tax.

Limited gaming revenue subject to TABOR totaled $107.0 million in FY 2018-19 and is expected to decline by 38.4 percent to $65.9 million in FY 2019-20 before growing 5.3 percent in FY 2020-21 and 10.8 percent in FY 2021-22. Colorado casinos were closed by executive order on March 17, 2020, and currently have no reopen date set. This left casinos with no revenue for half of March and all of April, and this forecast assumes that casinos will remain closed in May and partially reopen in June. Due to the graduated tax system, casino revenue is typically taxed at higher rates toward the end of the year, thus resulting in an outsized loss of gaming tax revenue for FY 2019-20. In FY 2020-21, casino activity is expected to resume slowly at first, as limitations on large gatherings remain in place and COVID-19-related health concerns persist.

By statutory formula, gaming tax revenue subject to TABOR cannot grow faster than 3.0 percent annually, but growth in tax revenue is expected to be supplemented by higher fee and interest earnings. Annual growth in gaming tax revenue that exceeds 3.0 percent is attributed to Amendment 50 and exempt from TABOR. Years when total gaming tax revenue grows by more than 2.8 percent therefore result in disproportionately higher distributions of Amendment 50 revenue.

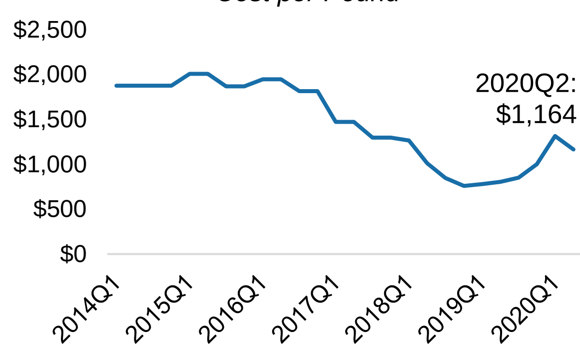
Sports betting was legalized in the state after the passage of House Bill 19-1327 in the 2019 legislative session, as well as the passage of Proposition DD during the November 2019 election. It launched on May 1; however, sports betting revenues face an uncertain near-term future with all professional sports indefinitely suspended in the U.S. A forecast of sports betting revenue will be available in future forecasts, once tax collections data for several months become available.

Revenue collected from sports betting activity will include licensing fees, set at between $1,200 and $2,000 per operator and master license biannually, an operations fee, and tax revenue, which is set at 10 percent of casinos' net sports betting proceeds. As voter approved revenue, sports betting tax revenue will not be subject to the TABOR limit; however, the fee revenue will be subject to TABOR. License fees collected through April total about $108,600. A Sports Betting Operations Fee was created under the rules adopted by the Limited Gaming Commission to cover a portion of administrative costs. The intent of the fee is to cover the remaining costs after license fees are paid, and will be set by the commission before June 1st of each fiscal year.

Total **marijuana tax revenue** equaled $262.9 million in FY 2018-19, a 4.6 percent increase from the prior year and the slowest growth in marijuana tax revenue since legalization. Marijuana tax revenues will continue to grow at a slow pace through the forecast period reaching $303.5 million in FY 2019-20 and $318.3 million in FY 2020-21. The majority of the revenue from the marijuana industry is voter-approved revenue exempt from TABOR; however, the 2.9 percent state sales tax is included in the state's revenue limit. Tax revenue from marijuana sales is shown in Table 12.

The special sales tax is the largest marijuana revenue source, and is taxed at a rate of 15 percent of the retail price of marijuana. Special sales tax revenue is expected to reach $216.6 million in FY 2019-20 and $227.9 million in FY 2020-21. The state distributes 10 percent of the special sales tax to local governments and retains the rest to be used in the Marijuana Tax Cash Fund, the General Fund, and the State Public School Fund. The excise tax is the second largest source of marijuana revenue and is dedicated to the BEST Fund for school construction. The excise tax is expected to generate $74.9 million in FY 2019-20 and $78.2 million in FY 2020-21.

Figure 3
Calculated Average Wholesale Rate
Cost per Pound



Source: Colorado Department of Revenue.

The excise tax is based on the calculated or actual wholesale price of marijuana when it is transferred from the cultivator to the retailer. There is considerable uncertainty about the calculated price due to a lack of available information. The wholesale price bottomed out at $759 per pound of marijuana flower in the fourth quarter of 2018 and has been steadily increasing each quarter before declining to $1,164 per pound in the second quarter of 2020, as shown in Figure 3. The wholesale price is a significant determinate of the excise tax revenue and it is not clear if the price will continue to increase or fall, consistent with a downward trends from 2016 to 2019. The wholesale price remains as both and upside and downside risk to the forecast.

The 2.9 percent state sales tax rate applies to medical marijuana and marijuana accessories purchased at a retail marijuana store. Medical marijuana sales tax revenue is expected generate $10.5 million in FY 2019-20 and remain flat through the forecast period, generating $10.6 million in FY 2020-21 and $10.6 million in FY 2021-22. Retail marijuana dispensaries will remit the state sales tax on marijuana accessories totaling $1.2 million in FY 2019-20 and $1.3 million in FY 2020-21. Revenue from the 2.9 percent sales tax is deposited in the Marijuana Tax Cash Fund and is subject to TABOR.

Table 12
Tax Revenue from the Marijuana Industry
Dollars in Millions

	Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Proposition AA Taxes	**$252.2**	**$291.5**	**$306.1**	**$327.1**	9.1%
Special Sales Tax	$193.2	$216.6	$227.9	$248.2	8.7%
State Share of Sales Tax	$173.9	$195.0	$205.1	$223.3	
Local Share of Sales Tax	$19.3	$21.7	$22.8	$24.8	
15% Excise Tax	$58.9	$74.9	$78.2	$79.0	10.2%
2.9 Sales Tax (Subject to TABOR)	**$10.8**	**$12.0**	**$12.2**	**$12.4**	4.9%
Medical Marijuana	$9.4	$10.5	$10.6	$10.6	4.3%
Retail Marijuana	$1.1	$1.2	$1.3	$1.4	
Interest	$0.3	$0.3	$0.3	$0.4	
Total Taxes on Marijuana	**$262.9**	**$303.5**	**$318.3**	**$339.6**	8.9%

**CAAGR: Compound average annual growth rate for FY 2018-19 to FY 2021-22.*

Federal Mineral Lease (FML) revenue is the state's portion of the money the federal government collects from mineral production on federal lands. Collections are mostly determined by the value of mineral production on federal land and royalty rates between the federal government and mining companies. Since FML revenue is not deposited into the General Fund and is exempt from TABOR, the forecast is presented separately from other sources of state revenue.

FML revenue totaled $113.8 million in FY 2018-19, a 31.5 percent increase as the state fulfills its obligations for previous payments associated with canceled leases on the Roan Plateau. In FY 2019-20, FML revenue is forecast to decrease 47.0 percent to $60.3 million. This decrease is attributable to a royalty rate reduction granted by the Bureau of Land Management to the Colowyo coal mine in Routt County, as well as lower oil and natural gas prices. This rate reduction was approved for several prior years, causing the Department of Interior to refund revenue from prior years and will reduce distributions to Colorado. Due to the crash in oil prices and subsequent production cuts, oil prices are expected to remain around $30 per barrel during 2020 and just under $40 per barrel during 2021, resulting in a decrease in royalties collected. Producers are cutting oil production due to lower prices, which causes a drop in natural gas production as well. FML revenue will rebound gradually in the last two years of the forecast to $66.3 million in FY 2020-21 and $82.2 million in FY 2021-22.

Forecasts for **Unemployment Insurance (UI) Trust Fund** revenue, benefit payments, and year-end balance are shown in Table 13. Revenue to the UI Trust Fund has not been subject to TABOR since FY 2009-10 and is therefore excluded from Table 13. Revenue to the Employment Support Fund, which receives a portion of the UI premium surcharge, is subject to TABOR and is included in the revenue estimates for other cash funds in Table 9.

UI benefits paid have seen an unprecedented increase during the COVID-19-related rapid economic contraction and are expected to reach $1.7 billion in FY 2019-20, with $1.4 billion in the last quarter of the fiscal year alone. As a consequence, the fund is expected to become insolvent by the end of the fiscal year, triggering the solvency surcharge and a move to a higher premium rate schedule beginning January 1, 2021. The forecast fund balances assume no federal borrowing, however, if the balance of the UITF falls below zero, the state is federally required to borrow money from the federal UI Trust Fund to cover required benefit payments. For states facing UI program insolvency, the Families First Coronavirus Response Act, signed into law March 18, 2020, includes a provision to provide interest-free federal loans, as well as funding for any extended state benefits that may be triggered by deteriorating economic conditions. While these provisions are currently set to expire at the end of 2020, this forecast assumes full federal funding of any extended state benefits, consistent with historical experience in prior recessions.

Benefits paid are expected to grow further in FY 2020-21 to $2.8 billion, as the effects of COVID-19 continue to reverberate throughout the economy, and many businesses remain shuttered or will operate at reduced levels for much of the remainder of 2020. By FY 2021-22, benefits paid are expected to fall back to $1.3 billion, as unemployment levels remain elevated during the economic recovery, consistent with the usual delayed decline in unemployment rates following a recession.

Table 13
Unemployment Insurance Trust Fund
Revenues, Benefits Paid, and Fund Balance
Dollars in Millions

	Actual FY 2018-19	Estimate FY 2019-20	Estimate FY 2020-21	Estimate FY 2021-22	CAAGR*
Beginning Balance	$922.3	$1,104.1	($7.0)	($1,994.8)	
Plus Income Received					
UI Premium	$523.0	$531.5	$692.0	$676.1	8.9%
Solvency Surcharge	$0.0	$0.0	$147.2	$143.8	
Interest	$23.3	$21.1	$0.0	$0.0	
Total Revenues	$546.3	$552.6	$839.2	$819.9	14.5%
Percent Change	-6.0%	1.2%	51.9%	-2.3%	
Less Benefits Paid	($365.5)	($1,663.7)	($2,827.1)	($1,302.9)	52.8%
Percent Change	-8.2%	355.2%	69.9%	-53.9%	
Ending Balance	$1,104.1	($7.0)	($1,994.8)	($2,477.8)	
Solvency Ratio					
Fund Balance as a Percent of Total Annual Private Wages	0.87%	-0.01%	-1.36%	-1.61%	

Totals may not sum due to rounding.
**CAAGR: Compound average annual growth rate for FY 2018-19 to FY 2021-22.*

Economic Outlook

Global, U.S., and Colorado economies faced a severe drop in economic activity in early 2020 as countries spanning the globe enacted strict measures to slow the rapid spread of the disease caused by the novel coronavirus (COVID-19). Swift and sweeping actions, including business closures, travel restrictions, and stay-at-home orders crippled business activity, disrupted the global supply of goods and services, and stunted consumer spending. In the U.S. and Colorado, these restrictions generally began in late March, reaching into early May.

With the relaxation of these restrictions, economic activity is slowly coming back to life. Yet, the extent of the economic damage and the duration of phased reopening remains unknown. The economic landscape continues to evolve as businesses dramatically shift workflows, households reevaluate their finances, and federal, state, and local governments seek new policies to both reopen economically while at the same time tempering the spread of COVID-19.

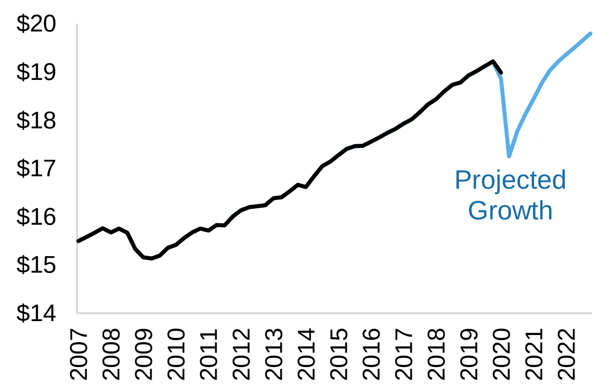
The global oversupply of crude oil, met with the more recent COVID-19-related plummet in fuel demand, has sent crude oil prices to unprecedented lows. As the U.S. oil and gas industry contracts, upstream and downstream industry impacts are mounting, compounding the impacts of the COVID-induced recession.

Federal aid, federal loan programs, and additional monetary policy easing will offer relief and liquidity to households, businesses, and state and local governments. Even with this support, the Colorado and U.S. economies will contract in 2020 at rates more severe than those experienced during the Great Recession.

The shape of recovery. Economists often reference the alphabet to describe the "shape" and strength of an economic recovery. The letters "V" (strong and rapid rebound), "U" (more protracted recession and longer recovery), and "W" (double-dip recession) are used as the common alphabet of business cycles.

The current recession and recovery, however, may require a new vernacular, as the exceedingly sharp drop in economic activity has been unparalleled in recent history. Figure 4 illustrates the anticipated "square-root" shape of the recession and recovery assumed in this forecast as measured by the broadest indicator of aggregate economic activity in the U.S., real gross domestic product.

Figure 4
Real U.S. Gross Domestic Product
Dollars in Trillions



Source: U.S. Bureau of Economic Analysis and Legislative Council Staff projections, including projected 2020Q1 revisions. Real GDP is inflation-adjusted to chained 2012 levels and shown at seasonally adjusted annualized rates.

A sharp decline that began in the first quarter of 2020 is expected to deepen significantly in the second quarter, reflecting shutdown orders that spanned most states. Phased reopening is expected to give way to a gradual rise in economic activity through the remainder of the calendar year. Yet, the effects of the shutdown will continue to ripple through the economy well into the future. Many but not all workers furloughed or laid off during the shutdown will regain employment as some businesses downsize or fail to reopen. Ongoing uncertainty and health-related concerns, combined with the economic blow of the shutdown, will constrain business investment, consumer activity, and the strength of the job market throughout 2020 and well into 2021. Tables 14 and 15 on pages 40 and 41 present histories and expectations for other economic indicators for the U.S. and Colorado, respectively.

Risks to the economic outlook. The location and extent of future COVID-19 outbreaks, the discovery and distribution of an effective vaccine or therapeutic, and future public health actions present unknowns that will play a central role in the economic recovery. This forecast assumes that an effective vaccine will not be available for a year to 18 months, necessitating ongoing social distancing restrictions. Gradual easing of the pervasive and strict March and April restrictions is expected, with more targeted localized interventions in areas facing outbreaks. Widespread closures are not assumed in this forecast, but are possible and could result in a more prolonged or protracted recession.

Near-term containment of COVID-19 and/or more rapid development of a vaccine or other treatment pose upside risks to the outlook. Additional federal fiscal stimulus and a rise in crude oil prices pose additional upside risks. Finally, the nation and Colorado are just beginning to reopen after several weeks of shuttered business and consumer activity. The vibrancy of economic activity could resume at a stronger pace than forecast, with more limited ripple effects from the shutdown and a more robust rebound in economic growth.

Outlook for Economic Activity by Major Component

The most commonly cited estimate of total economic activity in the U.S. is real gross domestic product (GDP), an estimate of the inflation-adjusted value of final goods and services. Advance data from the U.S. Bureau of Economic Analysis suggests that U.S. GDP declined at an annualized rate of 4.8 percent in the first quarter of 2020, ending the longest U.S. economic expansion on record. The first quarter contraction reflects the start of statewide shutdowns intended to curb the spread of COVID-19 as well as spillover effects from shutdowns elsewhere, particularly China. With shuttered businesses and schools, and curbed travel, consumer spending and business investment deteriorated. More prominent declines are expected in the second quarter of the year (Figure 4), reflecting shutdowns throughout April and into early May, with a phased approach to reopening. Real GDP is expected to rebound in the second half of the year, yet remain constrained as businesses and consumers respond to the effects of the shutdown and ongoing uncertainty.

- Real U.S. GDP is expected to decline 5.6 percent in 2020 as it endures and begins to recover from a contraction during the first half of the year. The rate of decline is more than twice that experienced during the Great Recession. Economic activity is expected to expand 4.8 percent in 2021 and rise an additional 3.8 percent in 2022.

Even after reopening, consumer spending will remain subdued. Consumer spending, as measured by personal consumption expenditures and accounting for more than two-thirds of total economic output, dropped at an annualized rate of 7.6 percent in the first quarter of the year, the steepest plunge since the second quarter of 1980. Although spending on nondurable products, such as food, cleaning products, and paper products, jumped 6.9 percent from the prior quarter, expenditures on big-ticket items such as cars, home appliances, and furniture dropped by 16.1 percent. In addition, cancelations of sporting events, mandatory restaurant shutdowns, and suspensions of non-essential services such as elective medical procedures and visits to salons resulted in a decline of 10.2 percent on spending of services in the first quarter of the year, the steepest drop for this category in almost 70 years. The sharp halt to consumer activity is expected to continue into the second quarter of the year amid ongoing shutdowns and phased reopening, before rebounding in the second half of the year. However, job losses, wage cuts, health concerns, and ongoing uncertainty will restrain consumer spending throughout 2020.

Amid uncertainty and profit losses, business investment will falter. A slowing global economy and trade uncertainty had already created challenges for many U.S. businesses before the spread of COVID-19 to the U.S. The impact of COVID-19-related closures is not yet well known as surveys struggle to keep up with rapidly changing economic circumstances. The shutdown has pushed cash flow dependent industries to the brink of collapse. Bankruptcies are likely in the retail and leisure and hospitality sectors, and many businesses will not reopen their doors. While some industries were more affected than others, none have been untouched.

In the first quarter of 2020, total gross domestic business investment fell by 5.6 percent after declining by 6.0 percent in the previous quarter. Business shutdowns and slowdowns have added to uncertainty and forced many companies to reevaluate their expectations and capital expenditures. Investment in business equipment plunged by 15.2 percent in the in the first quarter of the year, while spending on nonresidential construction projects dropped by 8.6 percent over the same period. Spending on residential housing jumped by an impressive 21 percent in the quarter, reflecting increased home improvement activities at the start of the shutdown. Business investment will deteriorate further in the second quarter of the year, reflecting shutdowns extending into May, and ongoing business uncertainty. A rebound is expected in the second half of 2020.

Low demand and supply disruptions will saddle import and export activity. In the first quarter of 2020, U.S. exports declined by 8.7 percent, while imports dropped by a notable 15.3 percent over the same period. The fall in both imports and exports reflect the supply-side constraints from shutdowns across the globe. Coupled with supply disruptions, shutdowns have prompted a precipitous drop in global demand for goods. Further, travel restrictions have brought the export of services to a standstill. These disruptions will continue well into 2020.

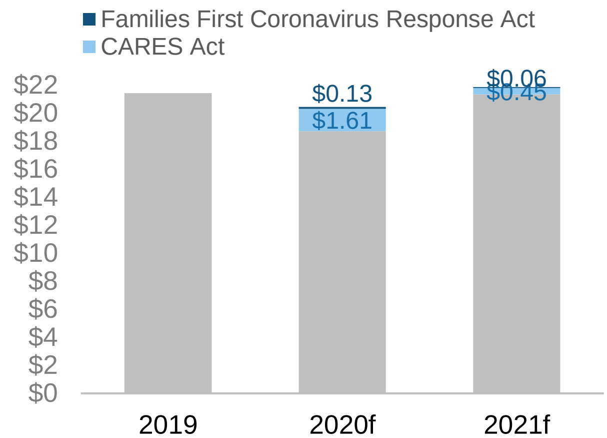
Federal stimulus will partially offset declines in GDP. Government spending was relatively flat in the first quarter of the year but is expected to rise in the near-term with the largest injection of federal stimulus in U.S. history. The federal Families First Coronavirus Response Act and Coronavirus Aid, Relief, and Economic Security Act (CARES) Act are projected to inject about $2 trillion in stimulus between 2020 and 2025. The Families First and CARES Acts include direct payments to households, expanded and extended unemployment insurance benefits, business assistance, health and education spending, and tax cuts to households and businesses

The vast majority of this stimulus will be spent in 2020 and 2021, as shown in Figure 5. Figure 5 contextualizes the magnitude of the boost from the federal stimulus relative to projected GDP, in nominal terms. Based on these stimulus estimates and economic projections from this forecast, the stimulus accounts for 8.5 percent of total GDP in 2020 and 2.3 percent of economic activity in 2021. Even with the unprecedented stimulus, the U.S. economy is still projected to contract at higher rates than experienced during the Great Recession.

State and local government spending is expected to decline in spite of federal aid. Federally and state-funded assistance programs, including unemployment insurance, Medicaid, and food assistance, will rise in 2020 with the sharp jump in joblessness. Federal assistance and loan support to state and local government is expected to allow for continued state and local administration of these programs to meet elevated demand.

Yet, state and local governments are expected to face significant revenue declines in 2020, reflecting the abrupt drop in economy activity associated with significant drops in tax collections across most major revenue streams. These declines will result in a pull-back in spending across major state and local government programs, such as education and transportation, in order to meet balanced budget requirements. Barring additional federal aid to offset revenue shortfalls, sizable reductions in state and local government spending are likely to pose a drag on GDP beginning in the second half of 2020.

Figure 5
Contributions of Federal Stimulus to U.S. GDP*
Dollars in Trillions



Source: U.S. Bureau of Economic Analysis, Congressional Budget Office, and Legislative Council Staff projections (f).
**Amount reflect nominal GDP, which is not adjusted for inflation.*

How will Colorado fare relative to the nation? Like the nation, Colorado is expected to see a significant decline in economic activity in 2020 based on COVID-19-related business closures and stay at home orders. Additionally, the collapse in crude oil prices will stem growth in energy and related activity, constricting economic growth further. Colorado's industry composition in general shows similarities with the nation as a whole. Yet, Colorado will face unique challenges with a higher energy industry concentration relative to most other states, and a stronger reliance on tourism for many leisure and hospitality industries. These impacts will be felt in some geographic areas of the state more than others. In particular, energy-producing regions and mountain resort communities are expected to be among the hardest hit in the state.

Labor Markets

March and April 2020 labor market indicators for both the U.S. and Colorado are daunting, marking widespread job losses across industries during the shutdown. These indicators will improve in the months ahead as the state and national economies slowly reopen. While many workers will regain employment as businesses reopen, many will not as businesses continue to feel the impact of cautious consumers and ongoing restrictions. Consistent with prior economic downturns, the labor market recovery will lag the economic recovery in the years ahead.

- U.S. nonfarm employment is expected to fall 6.3 percent in 2020 before resuming growth in 2021 at a modest pace of 2.0 percent. After reaching a historic low of 3.7 percent in 2019, the U.S. unemployment rate is expected to rise to 11.3 percent in 2020, and to remain elevated at 7.8 percent in 2021.

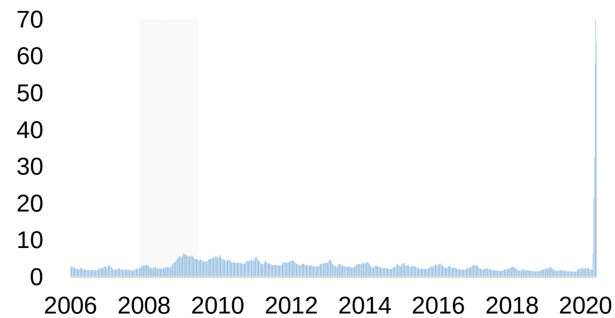
- In Colorado, nonfarm employment is expected to decline by 6.1 percent in 2020 before beginning a tepid recovery in 2021 with 1.3 percent growth. The Colorado unemployment rate is expected to increase sharply from 2.8 percent in 2019 to 10.1 percent in 2020, before declining slightly in 2021 to 7.1 percent.

Unemployment has risen sharply. As the COVID-19 pandemic has brought the U.S. and Colorado economies to a standstill, labor market conditions have deteriorated sharply. While under normal conditions changes in unemployment rates are registered well after a recession has officially begun, in the current context, business closures have had an immediate and already-measurable impact on unemployment rates. These impacts are likely to be underestimated in current data given reporting lags. With its high frequency of reporting, weekly initial unemployment claims, or claims filed to establish benefit eligibility, can be considered a reliable leading economic indicator.

The U.S. unemployment rate rose from a historic low of 3.5 percent in February to 4.4 percent in March and 14.7 percent in April. More than 30 million people have filed for unemployment in the U.S. since early March, a historically unprecedented increase which is likewise reflected in statewide unemployment claims, as shown in Figure 6.

The statewide unemployment rate, one of the lowest in the nation at 2.5 percent in February, rose to 4.5 percent in March, the 19th highest rate among states and equal to that of New York and Missouri. In Colorado, 365,492 people have filed initial unemployment claims in the seven weeks from the week ending March 21 to the week ending May 2, with a weekly high of 104,217 for the week ending April 11. This compares with 98,727 total initial claims in 2019, and a weekly high of 7,749 initial claims the week of January 9, 2010, in the wake of the Great Recession.

Figure 6
Colorado Initial Unemployment Claims
Four-week Average, Thousands

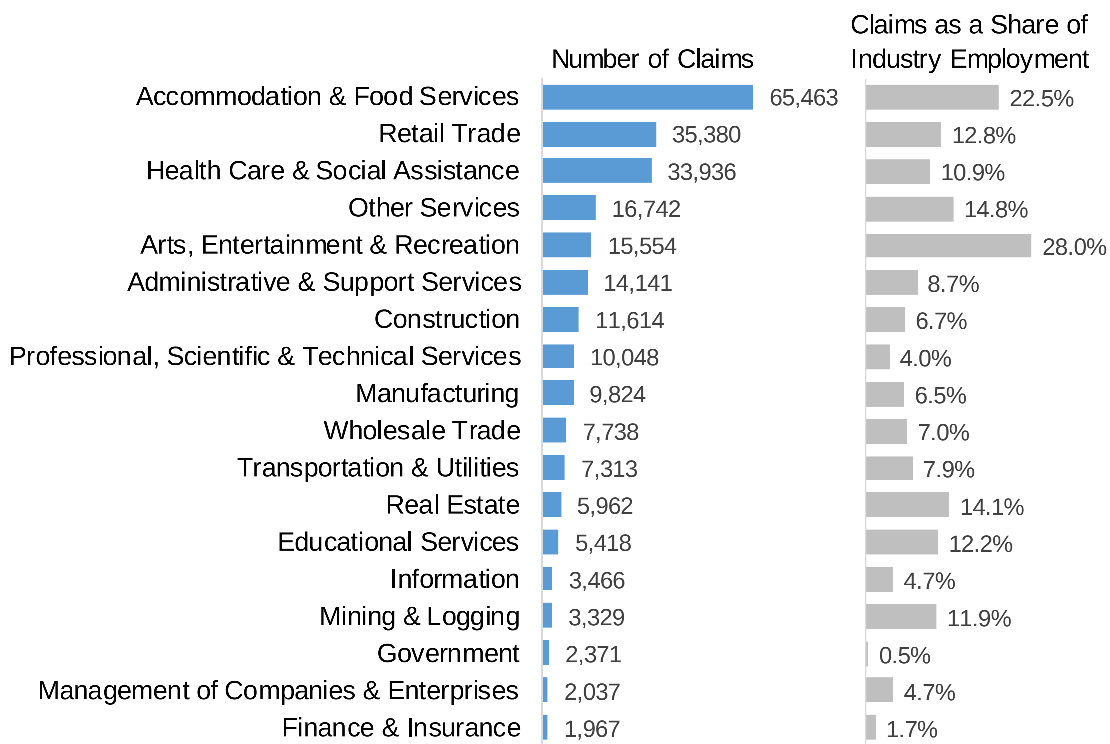


Source: Colorado Department of Labor and Employment. Not seasonally adjusted.

Job losses are widespread. Employment losses at the national and state levels have been concentrated in industries such as accommodation and food services; arts, entertainment and recreation; and other services such as personal care, which were the first to be impacted by mandated closures and social-distancing requirements. As shown in Figure 7, initial unemployment claims in Colorado as a percent of total employment by industry exceed 20 percent for arts, entertainment and recreation as well as accommodation and food services. No industry has been immune, however, as employment losses have been widespread.

The 10,048 new claims filed by workers in professional, scientific, and technical services accounts for only 4.0 percent of employment in the industry, yet this industry was a key driver of job growth through the expansion and could be a bellwether for more chronic impacts from COVID-19 disruptions. As the Safer-at-Home phases of Colorado's pandemic response are implemented, and local stay-at-home orders are lifted, new unemployment claims are expected to stabilize, and employment to improve, albeit much more slowly than it has declined, as continued health concerns plague the recovery of economic activity.

Figure 7
Colorado Initial Unemployment Claims by Industry



Source: Colorado Department of Labor and Employment. Claims from the week of March 7 through the week of April 25. Total employment by industry as of December 2019. Unemployment claims by industry do not reflect total unemployment claims due to data reporting issues.

Personal Income

The COVID-19-related shutdown is reducing household incomes for workers, business owners, and investors, with impacts expected to ripple across the economy throughout the year ahead. The immediate impacts of the crisis have been devastating for workers in the most profoundly affected industries, including travel, leisure and hospitality, and retail trade. However, job losses and wage reductions are weighing on all industries. Expanded unemployment insurance eligibility and benefits under the federal CARES Act and Families First Act have provided partial wage replacement for many workers who lost their jobs. In addition to workers, businesses owners and investors have also suffered immediate losses in affected industries. Many businesses are not expected to reopen, leaving a lasting impact on the economy and incomes.

- In Colorado, personal income is projected to contract by 5.9 percent in 2020, a more significant contraction than in any year during either of the past two recessions. On average, personal income is expected to increase 2.0 percent in 2021 before rebounding at a stronger pace to grow 6.9 percent in 2022.

Monetary Policy and Inflation

Near-term inflationary pressures are skewed to the downside for most goods and services. Across the economy, the crisis has depleted both aggregate supply and aggregate demand, but weak demand is expected to more than offset the price effects of supply constraints. The oil price crash places significant downward pressure on energy prices and the transportation component of prices for most goods. Potential for processing plant closures poses intermittent upside risk to food prices while the spread of the coronavirus continues.

- Headline inflation for U.S. urban consumers is expected to rise 1.1 percent in 2020 and 1.9 percent in 2021. Similarly, headline inflation in the Denver-Aurora-Lakewood combined statistical area is forecast at 1.2 percent in 2020 and 1.7 percent in 2021.

Leveraging new and existing tools of monetary policy. The Federal Reserve is utilizing its broad arsenal of monetary policy tools in order to counteract the degree and extent of economic damage. At emergency meetings in March, the Federal Open Market Committee (FOMC) voted to reduce the target range for the federal funds rate to between 0.00 percent and 0.25 percent. Interest rates are expected to remain at lower bound levels through the current forecast period.

In order to reduce longer-term interest rates, the Fed initiated a new round of asset purchases, or "quantitative easing." As of April 29, the Fed's portfolio was measured at $6.7 trillion, up from $4.2 trillion in late February. Through April, most additional purchases were of U.S. Treasury securities, though the Fed announced plans to purchase additional mortgage-backed securities as well. The recent $2.5 trillion infusion represents nearly 12 percent of nominal U.S. GDP for 2019. Quantitative easing is intended to allow banks to keep ample credit available to prospective borrowers at appropriately low interest rates.

In addition to keeping interest rates low, the Fed is providing direct credit facilities to businesses and state and local governments in conjunction with the federal CARES Act. The largest of these lending programs are:

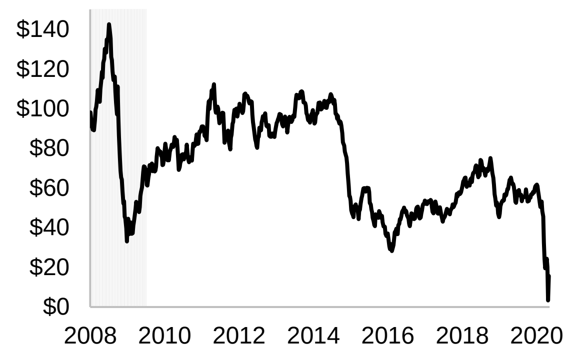
- primary and secondary market corporate credit facilities, which together are authorized to purchase up to $750 billion in corporate debt;
- the Main Street Lending Program, through which the Fed is authorized to purchase up to $600 billion in debt to support small and medium-sized businesses; and
- the municipal liquidity facility, through which the Fed is authorized to purchase up to $500 billion in short-term debt from states, counties with populations of 500,000 or more, and municipalities with populations of 250,000 or more.

Energy Markets

Energy industry activity collapsed in recent months, led by historically low crude oil prices that defied logical expectations (Figure 8). The crude oil industry is faced with twin supply and demand shocks, resulting in an unprecedented drop in prices and storage nearing full capacity. Oil production in the U.S. has begun to decline, with natural gas production falling in tandem. With oil prices hovering around $20 per barrel, intermittently plunging to near zero, and supply exceeding demand during the shutdown, recovery will depend on how quickly businesses reopen and the extent to which consumer travel activity resumes.

At the beginning of March, Saudi Arabia and Russia flooded the global market with oil, causing prices to drop 24 percent overnight. As COVID-19 shutdowns went into effect across the world, demand for gasoline and jet fuel declined precipitously and has yet to recover. Forecasts for oil prices vary but generally peg West Texas Intermediate crude oil at around $30 per barrel during 2020 before increasing to around $40 per barrel in 2021. A slow recovery in prices is expected as crude oil stocks are up 12.1 percent year-over-year in the U.S. as of the week of April 24 and most shutdowns are still largely in place. More efficient firms with lower per barrel breakeven prices and those with price hedges through at least 2020 stand to fare better through this crisis; however, many firms are overleveraged and may be forced into bankruptcy.

Figure 8
Crude Oil Price, West Texas Intermediate
Dollars per Barrel



Source: U.S. Energy Information Administration. Weekly average prices through May 9, 2020.

Low demand will continue to plague prices, in spite of production cuts. Production cuts of up to 20 percent of global oil demand were agreed upon by OPEC+, and U.S. production has already started to decline in response to the fall in demand. The U.S. Energy Information Agency (EIA) projects that U.S. oil production will fall 3.8 percent in 2020 and 5.6 percent in 2021 over year-ago levels. The Baker Hughes rig count for Colorado fell by over 60 percent since the beginning of March, leaving just 8 rigs as of May 1. Demand is not expected to recover until the end of 2021, with prices and production expected to follow suit. Since transportation uses comprise about 60 percent of oil use, any rebound will be contingent upon workers resuming commutes, air travelers' comfort with flying, and the resumption of commercial and trade activity. Natural gas production will fall in concert with oil production until demand ticks back up during the winter, pushing prices up toward the end of 2020.

Real Estate and Construction Activity

The U.S. and Colorado residential real estate markets started this year off strong, as a strong labor market, low mortgage rates and slower price appreciation boosted home sales and new homebuilding across many areas in the country. Housing indicators in April are expected to show an abrupt slowdown in sales and inventories as shelter-in-place and shutdown restrictions hampered the ability to show homes to potential buyers, prompting many sellers to remove their home listings. As economies reopen, the residential housing market is expected to improve and remain relatively stable as tight inventories and low mortgage rates are expected to support the market in spite of economic uncertainty.

In addition to the slowdown in sales, new residential construction activity has also faltered, in particular for multi-family housing. Many developers are rethinking plans in light of COVID-19-related restrictions and economic uncertainty. As a result, construction activity is expected to fall to lower levels in 2020 and 2021.

- Colorado housing construction activity, as measured by residential construction permits, will drop by 15,800 permits, or 41.0 percent, from 2019, as ongoing uncertainty and restrictions pause activity. In 2021, the number of new housing permits is expected to pick up again as low inventory, mortgage rates, and pent-up demand bolster the market.

Nonresidential construction activity and commercial real estate are expected to be hit hard. Construction has been exempt from city and state stay-at-home orders and work has continued on current projects. However, the pandemic is expected to affect the industry starting in the second quarter of the year as companies demand less space and future planned developments are delayed. In addition, public outlays have been the main driver for U.S. nonresidential construction activity over the past several years. In March 2020, spending on public nonresidential construction was up 7.8 percent from the same month one year ago, while private spending was down 1.8 percent over the year. The COVID-19 crisis is expected to strain state and local governments, which have already suspended many impending projects in some areas in the country.

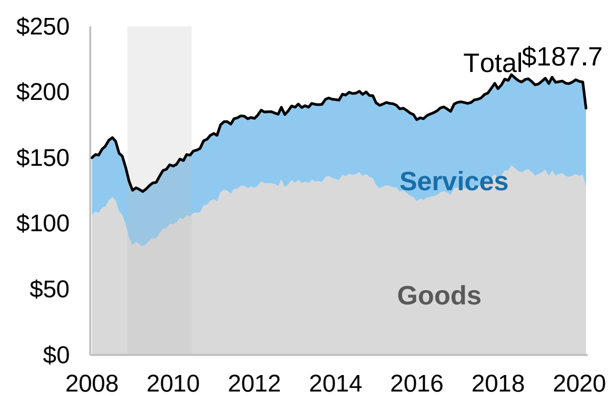
- The value of nonresidential construction starts in Colorado is expected to drop in 2020 and 2021, declining by 21.0 percent and 16.6 percent, respectively, as many industries hold off on new construction projects in an uncertain economic climate.

Global Economy and International Trade

As COVID-19 shutdowns occur across the globe, few economies and supply chains remain unaffected. Prior to the outbreak of the virus, both advanced and emerging and developing economies were strained by slow growth and already near-zero or negative interest rates, along with ongoing trade tensions between the world's two largest economies. Global economic growth is on pace in 2020 to experience the deepest decline in decades.

A global recession. The International Monetary Fund projects global growth will contract by 3.0 percent during 2020, driven by a faster 6.1 percent contraction in advanced economies, which have been most impacted by COVID-19 to date. Emerging and developing economies are forecast to contract by 1.0 percent during 2020 with negative growth in all regions except Asia. The following year is expected to see a robust rebound in growth to 5.8 percent across the globe, reflecting a broad-based uptick in activity in both advanced and emerging and developing economies. Countries reliant on the oil and gas sectors are likely to see slower rebounds in

Figure 9
U.S. Exports
Billions of Dollars



Source: U.S. Bureau of Economic Analysis.
Data are seasonally adjusted but not adjusted for inflation.

economic activity, as low oil prices are expected to persist, dampening the outlook for the industry even beyond 2021.

Global supply disruptions will change trade patterns. The often-abrupt countrywide shutdowns left little time to plan for the widespread disruption to supply chains and international trade. After years of strong growth, trade in goods last year saw a modest decline with the implementation of retaliatory tariffs by the U.S. and China. Total U.S. exports saw their largest month-over-month decline in March since the Great Recession, falling by almost 10 percent from February (Figure 9). The World Trade Organization projects a decline in global trade of between 12.9 and 31.9 percent in 2020, reflecting the significant uncertainty over the trajectory of the virus and how quickly countries will be able to recover. U.S. exports may see additional headwinds. The U.S. dollar has gained in value against other currencies as skittish investors have rushed to safe haven investments. During 2021, a recovery of over 20 percent growth is expected, as renewed demand bolsters manufacturing activity and spending on consumer goods.

Agriculture

COVID-19 has significantly dampened the outlook for agricultural producers, who are already in the midst of a prolonged industry downturn. COVID-19-related slowdowns at meatpacking facilities across the country have created supply chain bottlenecks, compounding demand shortfalls due to the closing of schools and restaurants. Prices for most major farm commodities, including hogs, ethanol, cattle, milk, corn, soybeans, and wheat, have declined. Both demand and supply conditions in the months ahead are likely to continue to weigh on agricultural commodity prices. Prior to the emergence of global economic developments related to COVID-19, growth in farm lending continued to show signs of slowing. The stability of farm real estate values and the financial strength of farm banks may be key sources of support for agriculture in the coming months. Much of the near-term economic outlook is dependent on the trajectory of COVID-19, which shows recent signs of spreading more into rural areas.

Livestock industries are facing new challenges. Livestock is a key sector at risk for continued COVID-19-related economic distress. Production of poultry, beef, and pork has already slowed as a key link in these supply chains, meatpacking plants, has proven especially vulnerable to the pandemic. Virus outbreaks have led to temporary closures, including of one plant in Greeley. Other plants face labor shortages; and many have had to slow production to maintain safer distances between workers. While bottlenecks in meatpacking are amplified for the more concentrated and vertically integrated poultry and pork industries, cattle producers are also feeling the impacts, as cattle pile up on ranches and in feedlots. In the near term, ongoing supply chain disruptions are likely to continue to depress cattle prices, while contributing to shortages of some meat cuts, especially ground beef, along with higher retail prices for consumers.

Weather conditions cloud the outlook. The impacts of the pandemic have been compounded by poor weather conditions in some parts of the state. A late deep freeze on the Western Slope in April led to an almost complete loss of the key crops grown there, including peaches, apples, apricots, pears, and cherries, the impacts of which are expected to reverberate statewide in the coming months.

Summary

The impacts of the COVID-19 pandemic and the related public health response of the past two months have been widespread, leaving no part of the U.S. and Colorado economies untouched. Economic activity began a steep decline in the first quarter of 2020 and is expected to deepen significantly in the second quarter, reflecting the impacts of the COVID-19-related business closures, stay-at-home orders, and travel restrictions. Phased reopening will give rise to a recovery throughout the remainder of the calendar year—though ongoing restrictions, health concerns, and uncertainty will constrain growth. Additionally, some business closures and job losses will be permanent, leaving a lasting mark on economic activity.

Unprecedented federal stimulus and monetary policy have helped to stabilize and soften the economic impact of shutdowns. Yet, the strength of the recovery remains uncertain and dependent on effective means to isolate and contain COVID-19.

Risks to the Forecast

Several factors could result in either stronger or weaker economic activity than forecast.

Downside. In addition to the near-term risks and uncertainty posed by the impacts of COVID-19, the shutdown and current downturn may compound existing vulnerabilities in the financial system and economy. This may result in a slower than expected recovery. Existing vulnerabilities include high levels of corporate debt that pose risks to the financial system, and gaps in workforce skills and training as well as income inequalities that will constrain the labor market and consumer activity across a significant share of U.S. households. Additionally, the fiscal health of state and local governments threatens to prolong the downturn, as it did during the Great Recession. The most sizeable downside risk, however, is a resurgence of COVID-19, necessitating a return to shutdown orders.

Upside. Several factors could result in a faster than expected recovery. COVID-19 may be contained or a vaccination or other treatment distributed more quickly than expected, resulting in a rapid return to pre-recessionary economic activity. Additional federal stimulus could further soften the impact of the recession on businesses and state and local governments, stabilizing and boosting job growth. A higher than expected rise in crude oil prices could stem the contraction of oil and gas industry activity. Finally, the dramatic impact of the global pandemic, shutdown, and recession has resulted in new ways of thinking about business activity. The technological and other innovations that will emerge from this shift may offer new ideas and tools, boosting business and job prospects in the years to come.

Table 14
National Economic Indicators

						Legislative Council Staff Forecast		
Calendar Years	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Real GDP (*Billions*)[1]	$17,403.8	$17,688.9	$18,108.1	$18,638.2	$19,073.1	$18,005.0	$18,869.2	$19,586.2
Percent Change	2.9%	1.6%	2.4%	2.9%	2.3%	-5.6%	4.8%	3.8%
Nonfarm Employment (*Millions*)[2]	141.8	144.3	146.6	148.9	150.9	141.4	144.3	148.7
Percent Change	2.1%	1.8%	1.6%	1.6%	1.4%	-6.3%	2.0%	3.1%
Unemployment Rate[2]	5.3%	4.9%	4.3%	3.9%	3.7%	11.3%	7.8%	6.3%
Personal Income (*Billions*)[1]	$15,717.8	$16,121.2	$16,878.8	$17,819.2	$18,602.3	$17,393.2	$17,723.6	$18,769.3
Percent Change	4.8%	2.6%	4.7%	5.6%	4.4%	-6.5%	1.9%	5.9%
Wage and Salary Income (*Billions*)[1]	$7,856.7	$8,083.5	$8,462.1	$8,888.5	$9,297.7	$8,711.9	$8,894.9	$9,393.0
Percent Change	5.1%	2.9%	4.7%	5.0%	4.6%	-6.3%	2.1%	5.6%
Inflation[2]	0.1%	1.3%	2.1%	2.4%	1.8%	1.1%	1.9%	2.1%

Sources
[1]U.S. Bureau of Economic Analysis. Real gross domestic product (GDP) is adjusted for inflation. Personal income and wages and salaries not adjusted for inflation.
[2]U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index for all urban areas (CPI-U).

Table 15
Colorado Economic Indicators

Calendar Years	2015	2016	2017	2018	2019	Legislative Council Staff Forecast 2020	2021	2022
Population (*Thousands, as of July 1*)[1]	5,450.6	5,539.2	5,611.9	5,691.3	5,758.7	5,810.6	5,851.2	5,903.9
Percent Change	1.9%	1.6%	1.3%	1.4%	1.2%	0.9%	0.7%	0.9%
Nonfarm Employment (*Thousands*)[2]	2,541.2	2,601.2	2,660.2	2,727.5	2,785.8	2,615.9	2,649.9	2,747.9
Percent Change	3.2%	2.4%	2.3%	2.5%	2.1%	-6.1%	1.3%	3.7%
Unemployment Rate[2]	3.9%	3.3%	2.8%	3.2%	2.8%	10.1%	7.1%	5.8%
Personal Income (*Millions*)[3]	$284,234	$289,581	$310,755	$332,943	$353,287	$332,443	$339,092	$362,489
Percent Change	4.8%	1.9%	7.3%	7.1%	6.1%	-5.9%	2.0%	6.9%
Wage and Salary Income (*Millions*)[3]	$146,531	$151,016	$160,719	$170,115	$182,288	$171,715	$175,664	$186,556
Percent Change	5.7%	3.1%	6.4%	5.8%	7.2%	-5.8%	2.3%	6.2%
Housing Permits (*Thousands*)[1]	31.9	39.0	40.7	42.6	38.6	22.8	28.4	33.9
Percent Change	11.1%	22.3%	4.4%	4.8%	-9.4%	-41.0%	24.7%	19.1%
Nonresidential Construction (*Millions*)[4]	$4,990.8	$5,989.0	$6,156.1	$8,096.3	$4,898.4	$3,869.8	$3,227.4	$3,937.4
Percent Change	14.7%	20.0%	2.8%	31.5%	-39.5%	-21.0%	-16.6%	22.0%
Denver-Aurora-Lakewood Inflation[5]	1.2%	2.8%	3.4%	2.7%	1.9%	1.2%	1.7%	2.2%

Sources
[1]U.S. Census Bureau. Residential housing permits are the number of new single and multi-family housing units permitted for building.
[2]U.S. Bureau of Labor Statistics.
[3]U.S. Bureau of Economic Analysis. Personal income and wages and salaries not adjusted for inflation. Forecast shown for 2019.
[4]F.W. Dodge.
[5]U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index.

Appendix: Historical Data

National Economic Indicators

Calendar Years	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
GDP ($ *Billions*)[1]	$13,814.6	$14,451.9	$14,712.8	$14,448.9	$14,992.1	$15,542.6	$16,197.0	$16,784.9	$17,527.3	$18,224.8	$18,715.0	$19,519.4	$20,580.2	$21,427.7
Percent Change	6.0%	4.6%	1.8%	-1.8%	3.8%	3.7%	4.2%	3.6%	4.4%	4.0%	2.7%	4.3%	5.4%	4.1%
Real GDP ($ *Billions*)[1]	$15,338.3	$15,626.0	$15,604.7	$15,208.8	$15,598.8	$15,840.7	$16,197.0	$16,495.4	$16,912.0	$17,403.8	$17,688.9	$18,108.1	$18,638.2	$19,073.1
Percent Change	2.9%	1.9%	-0.1%	-2.5%	2.6%	1.6%	2.2%	1.8%	2.5%	2.9%	1.6%	2.4%	2.9%	2.3%
Unemployment Rate[2]	4.6%	4.6%	5.8%	9.3%	9.6%	8.9%	8.1%	7.4%	6.2%	5.3%	4.9%	4.3%	3.9%	3.7%
Inflation[2]	3.2%	2.9%	3.8%	-0.3%	1.6%	3.1%	2.1%	1.5%	1.6%	0.1%	1.3%	2.1%	2.4%	1.8%
10-Year Treasury Note[3]	4.8%	4.6%	3.7%	3.3%	3.2%	2.8%	1.8%	2.4%	2.5%	2.1%	1.8%	2.3%	2.9%	2.1%
Personal Income ($ *Billions*)[1]	$11,381.7	$12,007.8	$12,442.2	$12,059.1	$12,551.6	$13,326.8	$14,010.1	$14,181.1	$14,991.7	$15,717.8	$16,121.2	$16,878.8	$17,819.2	$18,602.3
Percent Change	7.4%	5.5%	3.6%	-3.1%	4.1%	6.2%	5.1%	1.2%	5.7%	4.8%	2.6%	4.7%	5.6%	4.4%
Wage & Salaries ($ *Billions*)[1]	$6,057.0	$6,396.8	$6,534.3	$6,248.6	$6,372.1	$6,625.9	$6,927.5	$7,113.2	$7,475.2	$7,856.7	$8,083.5	$8,462.1	$8,888.5	$9,297.7
Percent Change	6.4%	5.6%	2.1%	-4.4%	2.0%	4.0%	4.6%	2.7%	5.1%	5.1%	2.9%	4.7%	5.0%	4.6%
Nonfarm Employment (*Millions*)[2]	136.5	138.0	137.2	131.3	130.3	131.9	134.2	136.4	138.9	141.8	144.3	146.6	148.9	150.9
Percent Change	1.8%	1.1%	-0.6%	-4.3%	-0.7%	1.2%	1.7%	1.6%	1.9%	2.1%	1.8%	1.6%	1.6%	1.4%

Sources
[1]U.S. Bureau of Economic Analysis. Real gross domestic product (GDP) is adjusted for inflation. Personal income and wages and salaries not adjusted for inflation.
[2]U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index for all urban areas (CPI-U).
[3]Federal Reserve Board of Governors.

Colorado Economic Indicators

Calendar Years	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Nonfarm Employment (*Thousands*)[1]	2,278.7	2,330.3	2,349.6	2,244.2	2,220.9	2,257.7	2,311.8	2,380.3	2,463.5	2,541.2	2,601.2	2,660.2	2,727.5	2,785.8
Percent Change	2.4%	2.3%	0.8%	-4.5%	-1.0%	1.7%	2.4%	3.0%	3.5%	3.2%	2.4%	2.3%	2.5%	2.1%
Unemployment Rate[1]	4.3%	3.7%	4.9%	7.3%	8.7%	8.4%	7.9%	6.9%	5.0%	3.9%	3.3%	2.8%	3.2%	2.8%
Personal Income ($ *Millions*)[2]	$189,476	$201,876	$208,738	$198,800	$205,372	$223,153	$237,142	$249,282	$271,308	$284,234	$289,581	$310,755	$332,943	$353,287
Percent Change	8.1%	6.5%	3.4%	-4.8%	3.3%	8.7%	6.3%	5.1%	8.8%	4.8%	1.9%	7.3%	7.1%	6.1%
Per Capita Income ($)[2]	$40,140	$42,024	$42,689	$39,982	$40,682	$43,570	$45,659	$47,298	$50,711	$52,147	$52,278	$55,374	$58,500	$61,348
Percent Change	6.1%	4.7%	1.6%	-6.3%	1.8%	7.1%	4.8%	3.6%	7.2%	2.8%	0.3%	5.9%	5.6%	4.9%
Wage & Salary Income ($ *Millions*)[2]	$105,649	$112,526	$116,710	$112,228	$113,670	$118,414	$124,947	$129,521	$138,626	$146,531	$151,016	$160,719	$170,115	$182,288
Percent Change	7.0%	6.5%	3.7%	-3.8%	1.3%	4.2%	5.5%	3.7%	7.0%	5.7%	3.1%	6.4%	5.8%	7.2%
Retail Trade Sales ($ *Millions*)[3]	$70,437	$75,329	$74,760	$66,345	$70,738	$75,548	$80,073	$83,569	$90,653	$94,920	NA	NA	NA	NA
Percent Change	7.5%	6.9%	-0.8%	-11.3%	6.6%	6.8%	6.0%	4.4%	8.5%	4.7%				
Residential Housing Permits[4]	38,343	29,454	18,998	9,355	11,591	13,502	23,301	27,517	28,698	31,871	38,974	40,673	42,627	38,633
Percent Change	-16.4%	-23.2%	-35.5%	-50.8%	23.9%	16.5%	72.6%	18.1%	4.3%	11.1%	22.3%	4.4%	4.8%	-9.4%
Nonresidential Construction ($ *Millions*)[5]	$4,641	$5,259	$4,114	$3,354	$3,147	$3,923	$3,695	$3,624	$4,351	$4,991	$5,989	$6,156	$8,096	$4,898
Percent Change	8.6%	13.3%	-21.8%	-18.5%	-6.2%	24.7%	-5.8%	-1.9%	20.1%	14.7%	20.0%	2.8%	31.5%	-39.5%
Denver-Aurora-Lakewood Inflation[1]	3.6%	2.2%	3.9%	-0.6%	1.9%	3.7%	1.9%	2.8%	2.8%	1.2%	2.8%	3.4%	2.7%	1.9%
Population (*Thousands, July 1*)[4]	4,720.4	4,803.9	4,889.7	4,972.2	5,047.3	5,121.1	5,192.6	5,269.0	5,350.1	5,450.6	5,539.2	5,611.9	5,691.3	5,758.7
Percent Change	1.9%	1.8%	1.8%	1.7%	1.5%	1.5%	1.4%	1.5%	1.5%	1.9%	1.6%	1.3%	1.4%	1.2%

NA = Not available.
[1]U.S. Bureau of Labor Statistics. Inflation shown as the year-over-year change in the consumer price index for Denver-Aurora-Lakewood metro area.
[2]U.S. Bureau of Economic Analysis. Personal income and wages and salaries not adjusted for inflation.
[3]Colorado Department of Revenue. Data are not available after 2015.
[4]U.S. Census Bureau. Residential housing permits are the number of new single and multi-family housing units permitted for building.
[5]F.W. Dodge.